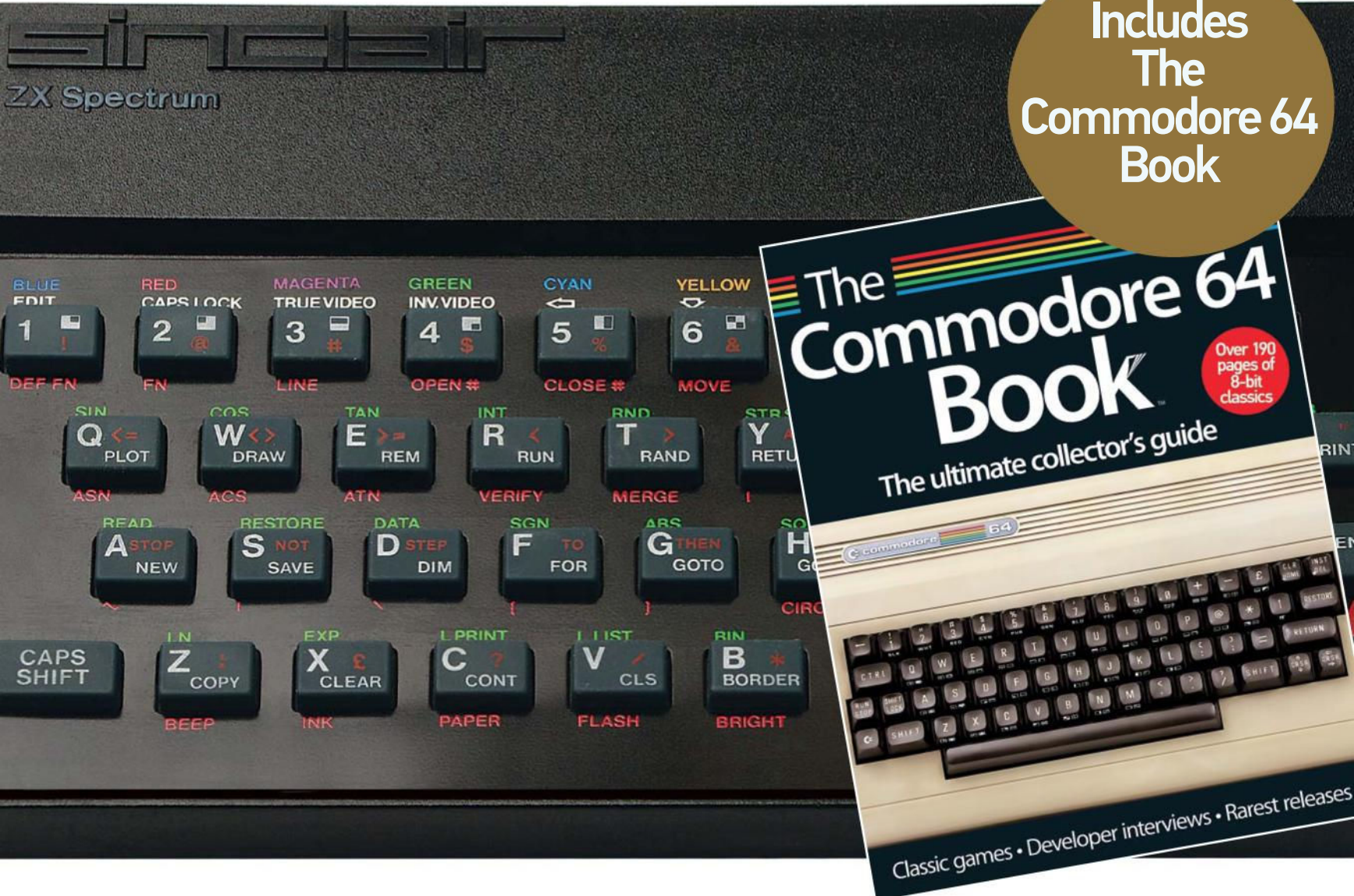


The ZX Spectrum Book™

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pages of
8-bit
classics

The ultimate collector's guide

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The
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Book



Classic games • Developer interviews • Rarest releases

Welcome to The ZX Spectrum Book™

There are a number of reasons why the Spectrum was considered the underdog when it went up against Commodore's hugely popular C64. The Spectrum was smaller, had a flimsier build, didn't manage to make much of an impact in the United States, and it had a sound chip that could best be described as adequate (and was certainly inferior to its C64 counterpart). And yet despite all this, the Spectrum remains one of the best-loved home computers of the Eighties.

Rising phoenix-like from the ashes of Sir Clive Sinclair's ZX81, the Spectrum quickly became a hit with gamers thanks to its many arcade conversions, cute hardware design and a host of incredible games, ranging from *Sabre Wulf*, to *Head Over Heels*, *Turbo Esprit* and *Skool Daze*. Many of the UK's most important software houses, including Rare and Codemasters, cut their teeth on the machine, and it was largely responsible for the rise of the bedroom coders, some of which feature within this very book.

With the Spectrum now well into its thirties, it's telling that Sir Clive Sinclair's beloved machine still retains a passionate fanbase, both in the UK and beyond. Whether you love Matthew Smith, Ultimate Play The Game, Durell Software, *R-Type* or *Manic Miner*, you'll find plenty to enjoy inside this book.



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The ZX Spectrum Book™

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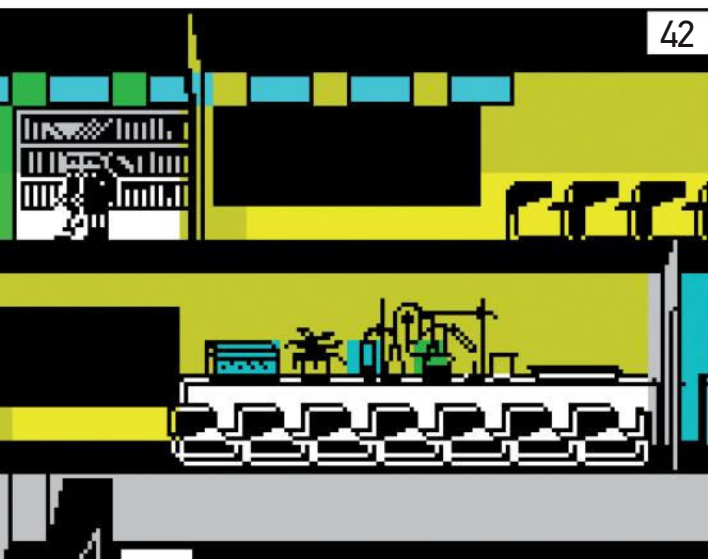
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CLASSIC
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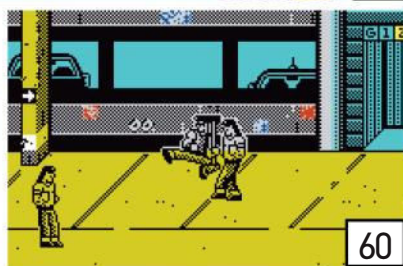
Malcolm Evans was a whizz on the ZX81, and proved to be just as good on the Spectrum. Don't believe us? Play *Trashman* to see what we're talking about



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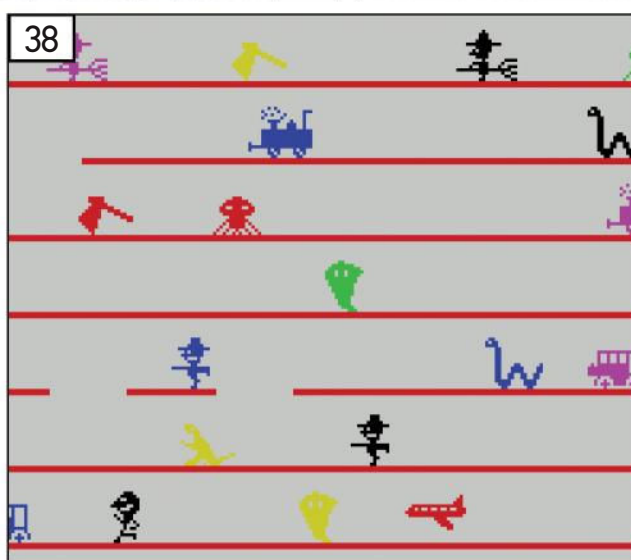
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86 COLLECTOR'S GUIDE ZX SPECTRUM

If you're now interested in collecting for Sir Clive Sinclair's 8-bit micro, this guide will reveal where you need to start





Year Released: 1982

Original Price: £125 (£175 48k)

Buy it now for: £10+

Associated Magazines: Crash, Your Sinclair, Sinclair User, Sinclair Programs, Sinclair Answers, ZX Computing

Why the Spectrum was great... Owning a Spectrum was like being part of a secret club. Like-minded gamers who knew what it meant to type out hundred line pokes, wait ten minutes for *The Hobbit* to load, and had mastered the art of tape-to-tape copying.



sinclair ZX Spectrum



THE HUMBLE SINCLAIR ZX SPECTRUM WAS SMALL AND UNASSUMING, YET IT MANAGED TO CONQUER THE UK COMPUTER MARKET DURING THE EIGHTIES AND WAS COMMERCIALY VIABLE FOR OVER A DECADE. DURING THIS TIME THE MACHINE WON THE HEARTS OF MILLIONS AND A THRIVING FAN SCENE NOW EXISTS. OVER 30 YEARS SINCE ITS ORIGINAL LAUNCH, MARTYN CARROLL REVEALS HOW THE 8-BIT COMPUTER OVERCAME ALL THE ODDS

Having made a name for himself in the electronics field, releasing everything from pocket calculators to tiny televisions, Sir Clive Sinclair turned his entrepreneurial gaze toward computers, and in 1978 he launched the MK14. It was sold in kit form and proved to be little more than a programmable calculator, but sales of over 50,000 convinced Sir Clive that there was a hunger for computers aimed at hobbyists.

In early 1980 Sinclair released the ZX80, a diminutive home computer with a touch-sensitive membrane keyboard and just 1K of memory. It too was sold in kit form for £79, but crucially a pre-built version was available for £99, opening up the world of computers to more general home users who weren't prepared to whip out a soldering iron and start bolting bits together. However, it was the ZX80's successor, the enhanced and improved ZX81 that really kick-started the home computing craze in the UK. Released in March 1981 and available for either £49 (kit form) or £69 (pre-built), the ZX81 clocked up sales of more than 400,000 in a little over 12 months. Sinclair had devised the ultimate entry-level computer and the British public were buying into it.

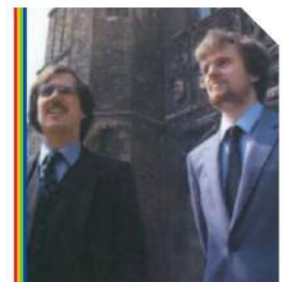
But Sir Clive wasn't about to stand idly by, counting the cheques and postal orders that were pouring into his hectic mail order department. The industry he'd had a hand in creating was moving fast, very fast, and competitors were queuing up for a piece of the pie. To compound matters, the cost of components and memory was tumbling all the time, allowing more manufacturers to tap into the low-cost computer market that belonged almost exclusively to Sinclair. Plus, there was the small matter of Acorn beating Sinclair to a lucrative BBC contract that would ultimately see Acorn computers installed in classrooms up and down the country. It was time for Sir Clive to dig in and fight his corner.

To this end, Sinclair began to mastermind the ZX82 and ZX83 models. The former would supersede the ZX81, adding sound

Tech specs

A trusty Zilog Z80A chip running at 3.54MHz powered the Spectrum. The machine was available with either 16K or 48K of RAM, and Sinclair BASIC was provided on a 16K ROM chip. The video display could output 24 lines of text with 32 character positions, and 192x256 pixels for high-resolution graphics. The Spectrum had very few external connectors. There was TV out, ear and mic ports to connect a tape recorder, and a 28-pin expansion slot for connecting a wide range of available peripherals, including joystick interfaces, printers and Sinclair's own Microdrive storage system.

Sinclair's Richard Altwasser, who had previously helped develop the ZX81, designed the Spectrum's hardware. The ROM code was written almost entirely by Steve Vickers of Nine Tiles Information Handling Ltd (a small portion was adapted from the original ZX80 ROM code written by John Grant), while Sinclair designer Rick Dickinson created the casing and infamous 'dead flesh' keyboard.



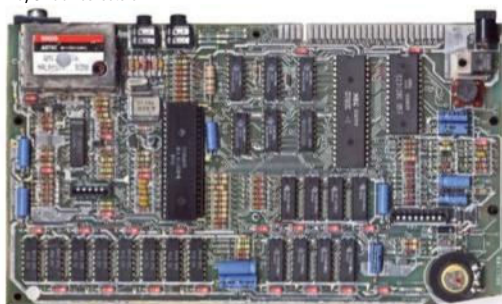
» The men behind the Spectrum, Steve Vickers (left) of Nine Tiles and Richard Altwasser of Sinclair Research.



sinclair ZX Spectrum



» The MK14 was Sir Clive's first home computer and today is now highly sought after by Sinclair collectors.



» The first Spectrum print ad sang the system's praises, even going so far as to include a glowing quote from Sir Clive himself.

» The Spectrum was a fairly simple machine with no dedicated graphics hardware and limited expansion options (photo: Bill Bertram).



» Released in April 1982, the Spectrum went on to become the UK's best selling home computer.

capabilities, colour graphics and a moving keyboard to the mix, while the latter was hoped to seize control of the small business market.

The eventual fortunes of the two machines couldn't be more different. The ZX82 was renamed the ZX Spectrum and went on to become Britain's best selling home computer. The ZX83, meanwhile, was launched as the Sinclair QL (Quantum Leap) in 1984 and failed to make an impression as a business machine. The QL is now regarded as an embarrassing footnote in the Sinclair story, second only to the disastrous C5 motorised tricycle (although to be honest, the C5 is probably more of an epitaph than a footnote).

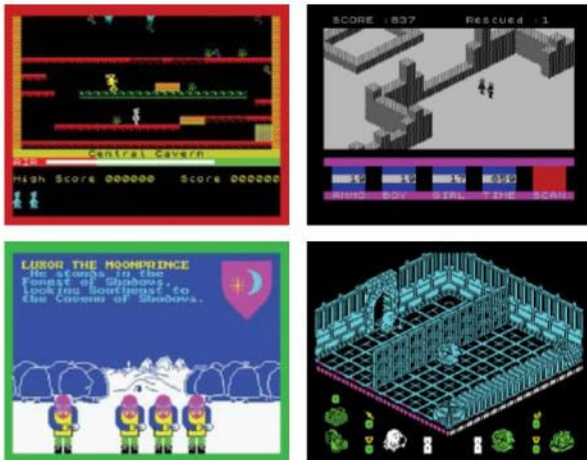
RAINBOW BRIGHT

In April 1982, long before the QL and C5 tarnished Sir Clive's name, the Spectrum was launched in a blaze of publicity at the Earls Court Computer Show. Shortly after its unveiling, an advert for the new computer began to appear in specialist computer magazines. It was typically text-heavy and very Sinclair, hammering home each of the machine's 'astonishing' new features. Topping the list of key features was the Spectrum's high-resolution colour graphic capabilities. Whereas the ZX80/81 were monochrome machines, the Spectrum lived up to its name by outputting seven colours plus black. Sound support was also included, with the new BEEP command allowing you to control pitch and duration. The advert went on to reveal details of a full-size moving keyboard that would replace the plastic membrane used on the ZX80/81. To seal the deal, the Spectrum came with a very generous amount of RAM – 16K as standard, with an expanded 48K version also available.

But what about the price? Would Sir Clive be able to continue his noble aim of delivering affordable computers to the masses? The answer was a resounding yes. The 16K model was available for just £125, and for £50 more you could take home the 48K version. Compare that to the Commodore 64, which launched in the UK at £299. Or even better, the BBC Model B, which would lighten your pockets to the tune of £399. Sinclair had soundly undercut the competition and looked to have sewn up the market once again.

The advert posed a problem however. The Spectrum simply sounded too good to be true. All those features for such a competitive price. There had to be a catch. But before anyone could see the machine and make up their own minds, they had to suffer Sinclair's famously unreliable mail order department. Customers were advised to allow up to 28 days for delivery, and yet those who'd placed their orders early typically had to wait between 12 and 16 weeks for their shiny new machines to arrive. During the latter half of 1982 Sinclair was reportedly manufacturing 20,000 Spectrums a month and yet was still unable to meet the huge demand. It didn't help that a quantity of machines were earmarked for overseas markets following a steady European roll out. Things did ease somewhat by early 1983, mainly because the Spectrum was made available through WHSmiths and other high street chains.

RETROINSPECTION: SINCLAIR ZX SPECTRUM



» Great games that made a splash on the Speccy. From left to right: *Manic Miner*, *Ant Attack*, *Lords of Midnight* and *Head over Heels*.

RUBBER SOUL

The advert flagged the Spectrum as a “powerful professional’s computer”, but in several respects the new computer was very similar to its more primitive forebears. It’s believed that this was intentional on Sir Clive’s part as a means of speeding up production and keeping costs down.

At first glance it was obvious that Sinclair had performed another miracle of miniaturisation. The Spectrum was just 23cm wide, 14cm long and 3cm deep. The most noticeable new addition were the small rubber keys that poked through the sleek black casing. A single sheet of spongy rubber was used and by pressing down on a key, the contact underneath was closed and then the key sprung back to its original position. It was preferable to the ZX81’s touch-sensitive keyboard, and probably just as cost effective, but to call it a ‘full-size, moving-key keyboard’ was a little optimistic.

The actual keyboard layout was almost identical to the one that debuted on the ZX80. There were 40 keys in total, compared to an average of 60-70 keys found on computers with proper typewriter-style keyboards. The updated Sinclair BASIC retained its one-touch keyword entry system, where a typical key could be used to enter five different commands depending on which shift keys it was pressed in conjunction with. This input method baffled beginners and proved far too restrictive for more seasoned users. To complicate matters, a number of new BASIC commands were introduced, taking the total number of keyboard functions to a finger-bending 193. In some cases it would be quicker to manually type the command than press the required series of keys. Again, the advert was slightly wide of the mark with its “one-touch” keyword entry claims.

What about the new colour capabilities? Well, Sinclair actually undersold the Spectrum in this respect. There were eight basic colours, yet the BRIGHT command could be applied to every colour except black, making 15 in total. Coupled with the surprisingly high screen resolution (256 x 192 pixels), the Spectrum’s display capabilities could rival machines retailing at twice the price. There was a drawback however. To save memory, each 8 x 8 pixel square could only display a foreground and background colour. As a result, in games where a character sprite of one colour passed over a background of a different colour, the colour of the sprite would bleed into the background. This so-called colour clash effect was unique to the Spectrum, much to the amusement of Commodore 64 and Amstrad CPC owners. We can now look back and say that colour clash gave Speccy games a certain charm, but back in the day such wistful reasoning would never have settled those playground spats.

Rather than blast sound through your TV set, the Spectrum featured a small internal speaker. It was affectionately known as the ‘beeper’, because it, well, beeped, and that was about it. You could control the length and tone of the beep but not the volume, which was a shame because the speaker was barely audible in the first batch of models off the production line (later versions corrected this

problem to some extent). Worse still, the speaker would temporarily freeze the processor while it played a sound. Considering what they had to work with, it’s amazing that programmers managed to add sound effects and music to games at all. Even more remarkable is that musicians like Martin Galway and Tim Follin developed routines that simulated multiple sound channels. It was also possible to play sampled speech through the speaker, albeit in very crude fashion.

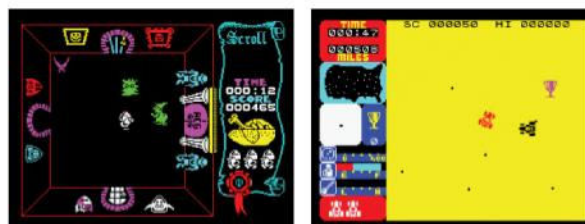
PLAY THE GAME

Despite these technical shortcomings, the Spectrum quickly generated a huge range of independent software. Games were incredibly popular and unofficial versions of arcade classics such as *Space Invaders*, *Pac-Man* and *Breakout* quickly flooded the market. Software houses that had sprung up to support the ZX81 were drawn to the new machine, attracted by its colour graphics, relatively huge memory (the 48K version at least), and rapidly growing user base.

Bug-Byte, Mikro-Gen, Quicksilver, Imagine, Ocean and dozens of other developers made a name (and a small fortune) for themselves during these early years, but one company in particular stood out from the crowd. Ashby Computer and Graphics Ltd, then operating under the trade name Ultimate Play the Game, now known as Rare, set the whole scene alight with a series of stunning Spectrum games. Its first four releases (*Jetpac*, *Pssst*, *Cookie* and *Tranz Am*) became best selling classics that other developers could only dream of, and yet they all ran on a standard 16K Spectrum. Ultimate’s 48K games were bigger and better, with titles like *Atic Atac*, *Sabre Wulf* and *Knight Lore* whipping the computer press into a dribbling frenzy. Other ground-breaking games that debuted on the Spectrum before being ported to different machines included Matthew Smith’s *Manic Miner*, Sandy White’s *Ant Attack*, Mike Singleton’s *Lords of Midnight* and Jon Ritman’s *Head over Heels*, amongst many others. The Spectrum really was home to an embarrassing number of great games.

It was this catalogue of games, as wide as it was deep, that pushed sales of the Spectrum through the roof. In the run up to Christmas 1983, over 50,000 machines were sold every month in the UK. As the cost of components fell, Sinclair fuelled demand further by slashing the price of the Spectrum. The 16K model was reduced to just £99, nestling just under the psychological price barrier of £100, and the 48K version retailed at a very attractive £129.

This was the Spectrum’s golden period, but sadly it didn’t last much beyond 1984. In October of that year Sinclair released the Spectrum+, which rather than a souped-up Speccy that buyers and retailers hoped for, merely added a moving QL-style keyboard. Similarly, the long-awaited Spectrum 128, which received a low-key UK launch in February 1986, was essentially a Spectrum+ with 128K memory, a new three channel sound chip and an updated version of Sinclair BASIC. These updates were cautious, lazy even, perhaps because by this time Sinclair’s focus (and finances) had shifted almost exclusively to the doomed C5 project. In summer 1986 Amstrad acquired Sinclair’s computing arm and went on to create Spectrum-based clones of its popular CPC range. Amstrad’s +2 and +3 models were marketed as games machines and certainly attracted new buyers, but those who’d fallen in love with the ZX line would sadly never see a true successor to the Spectrum. Perhaps if Sinclair had continued to attack the competition as aggressively as it had done during the early Eighties then a 16-bit computer capable of undercutting the Commodore Amiga and Atari ST might have been a distinct possibility. Nevertheless, a place in computing history is unreservedly set-aside for the not-so-humble Sinclair Spectrum.



» Sinclair Research boss Sir Clive Sinclair, pictured here at the QL launch back in January 1984.



The wonderful World of Spectrum

Speccy fans are fortunate in that one of the Web’s best retro sites is dedicated to the machine. World of Spectrum (www.worldofspectrum.org) contains information on more than 12,500 games, with screenshots, links to reviews, and in the vast majority of cases, downloadable ROMs that can be played on modern platforms via emulation. Don’t let the presence of ROMs deter you though – webmaster Martijn van der Heide actively seeks permission from publishers to offer the games freely on the site, and will promptly remove any games if requested by an IP owner.

World of Spectrum celebrated its 10th birthday at the end of the November, and we asked Martijn if he was planning to celebrate the anniversary. “Well I’ve added a smallish new section to the site, covering the Timex versions of the Spectrum,” he replied in typically modest fashion. But what about the long-term future of WoS? “It will take several more years to update the databases so I hope to provide a more complete history over time. Other than that we are aiming to provide many more screenshots. And when more people have broadband Internet we’ll shift to a more glossy, interactive environment.” Sounds good, Martijn. Here’s to the next 10 years...

World of Spectrum is not just the best Speccy site on the Web, but arguably the best retro resource full stop.

PERFECT TEN GAMES



STARQUAKE



STARQUAKE

- » RELEASED: 1985
- » PUBLISHED BY: BUBBLEBUS SOFTWARE
- » CREATED BY: STEVE CROW
- » BY THE SAME AUTHOR: FIRELORD, WIZARD'S LAIR

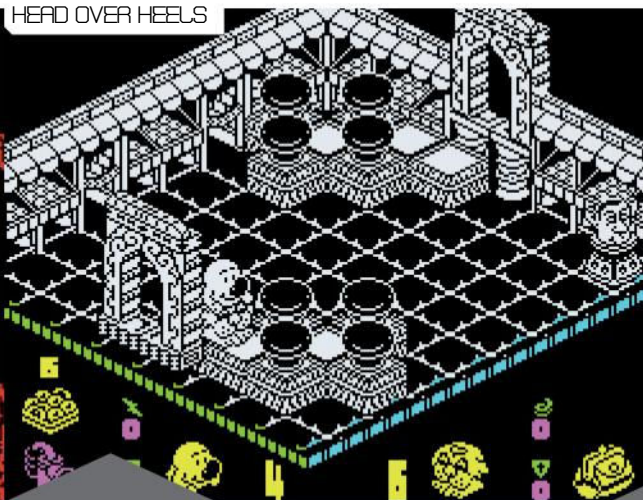
Steve's Crow unbelievably addictive flick-screen platformer mixes pure playability with crisp sci-fi graphics and frantic puzzle solving. It's one of those games where every aspect has been polished to gleaming perfection; whether it's the mini-Mastercards that open any doors (geddit), the ability to summon temporary platforms beneath you at will, or the handy passworded teleporters that make light work of navigating the immense caverns. But it's the sheer speed of the thing that makes *Starquake* such an exhilarating experience on the Spectrum. Crow's devious mazes require serious cunning to traverse, and it's all kept at a feverish pace thanks to a constant supply of energy-sapping enemies. A must for every Spectrum aficionado, *Starquake* is pure 48k bliss.

ANT ATTACK

- » RELEASED: 1983
- » PUBLISHED BY: QUICKSILVA
- » CREATED BY: SANDY WHITE
- » BY THE SAME AUTHOR: I OF THE MASK, ZOMBIE ZOMBIE

Few games in the early Eighties were as atmospheric and downright terrifying as *Ant Attack*, the first real home video game to be viewed from an isometric perspective. The ghostly monotone graphics only served to intensify the desolation of the abandoned walled city of Antescher, and made the sudden appearance of the titular arthropods even more shocking. Typical games are spent tear-arsing around the tomb-like structures desperately following the green or red signals from your scanner to locate each lost soul. Sudden ant attacks are agile and persistent and require a dash to high ground or a well-aimed grenade to avoid. One of the few games to actually allow you to choose your sex, *Ant Attack* is still a prime example of a simple concept well implemented and burnt into the minds of a generation of gamers.

HEAD OVER HEELS



HEAD OVER HEELS

- » RELEASED: 1987
- » PUBLISHED BY: OCEAN SOFTWARE
- » CREATED BY: JON RITMAN, BERNIE DRUMMOND
- » BY THE SAME AUTHOR: NAMTIR RAIDERS, BATMAN, MATCHDAY I & II, MONSTER MAX

Pre 1987 Ritman and Drummond had toyed with the likes of the similarly isometric *Batman*. But it was with *Head Over Heels* that the duo truly achieved greatness. It's difficult to describe now the impact this game had when it was released; surpassing every other 3-D platformer in an instant with its relentless assault of clever ideas, kitsch graphics and surefooted game design. Ritman is a master of Rubik's Cube-style puzzles and nearly every room requires lateral thinking and more than a dash of fingertip dexterity. Dividing the *Head and Heels* character's abilities, so that they can only progress so far as separate entities and must literally join forces to complete the game, is a masterstroke, and typical of the ingenuity that seeps from the game's every pore.

ATIC ATAC



ATIC ATAC

- » RELEASED: 1983
- » PUBLISHED BY: ULTIMATE
- » CREATED BY: TIM STAMPER, CHRIS STAMPER
- » BY THE SAME AUTHOR: LUNAR JETMAN, SABRE WULF, ALIEN 8, GUNFRIGHT, KNIGHTLORE

No 'perfect ten' list for the Spectrum would be complete without a solid showing from the Stamper brothers and their superb Ultimate label. *Atic Atac* makes it into the list by a narrow margin (so many Ultimate games are outright classics) because it set the scene for Ultimate to dominate the Spectrum. Playing as Knight, Wizard or Serf, *Atic Atac* is an overhead perspective arcade adventure set over 200+ rooms in a gothic castle populated by endless minions, as well as Frankenstein, Quasimodo, the Mummy and of course Dracula. It's fast, it's challenging, and even today it provides hours of entertainment.

THE GREAT ESCAPE

- » RELEASED: 1986
- » PUBLISHED BY: OCEAN SOFTWARE
- » CREATED BY: DENTON DESIGNS
- » BY THE SAME AUTHOR: ENIGMA FORCE, SHADOWFIRE, WHERE TIME STOOD STILL, COSMIC WARTOAD

In the year of the space shuttle Challenger disaster, Spectrum owners were treated to one of the finest isometric adventures ever to appear on Sir Clive's rubber marvel.

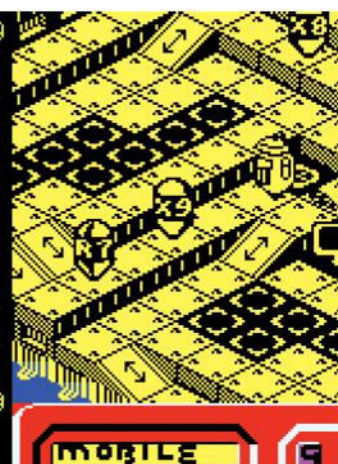
The Great Escape is set in a Colditz-style POW camp during WWII, and the objective is to escape before your morale is crushed, and without alerting the guards and getting thrown into the cooler. What makes the game so compelling is the attention to detail and a real sense of confinement. The graphics are finely crafted, and clever little touches like the morale flag, the searchlights at night, the hidden tunnels, and the way you default to the camp routine if you stop playing, make the game a true classic. Just look at it.



ANT ATTACK



THE GREAT ESCAPE



QUAZATRON

ZX Spectrum

A magnificent machine like the Speccy deserves a well thought-out and balanced appreciation of the ten best games, especially when there are so many genuinely superb titles that could be covered. The following list wasn't easy to put together, but we guarantee that it includes some of the best games to be found on the system.

PERFECT 10



QUAZATRON

- » RELEASED: 1986
- » PUBLISHED BY: HEWSON CONSULTANTS
- » CREATED BY: STEVE TURNER
- » BY THE SAME AUTHOR: SPACE WARS 3D, AVALON, DRAGONTORC, RANA RAMA, ZYNAPS

We're going out on a bit of a limb here, because Steve Turner's *Quazatron* is not generally considered one of the top ten Spectrum games, but hey, it's our list, right?

So what if it stole C64 *Paradroid's* innovative 'grappling' system, and the lifts to other levels are kinda similar, *Quazatron* carves a niche for itself, and you can't deny the clever use of colour, the detail on the droids, and the *Marble Madness*-inspired gameplay. Where *Quazatron* scores highly is the player's desire to battle and strip the best parts from your fellow robots, boost their own abilities, and then wipe each level clean before descending to the next. A simply magnificent game.

BACK TO SKOOL

- » RELEASED: 1985
- » PUBLISHED BY: MICROSPHERE
- » CREATED BY: DAVID REEDY
- » BY THE SAME AUTHOR: SKOOL DAZE, WHEELIE, CONTACT SAM CRUISE

Together with the original *Skool Daze*, *Back to Skool* represents bedroom programming at its best – quintessentially British, packed with detail, and eminently playable, how could this game fail to appeal to its audience of rowdy teenagers?

Allowing the player to individually name the cast of characters was Reedy's masterstroke because it meant your could personalise and relate to them instantly. What makes *Back to Skool* such a great Spectrum game though is the way it plays and the St Trinians-esque details, like riding the bike through the school, shooting water pistols, releasing the mouse to make the girls jump, and of course avoiding the cane of the sinister Mr WHacker. Fond, fond memories...

JET SET WILLY

- » RELEASED: 1984
- » PUBLISHED BY: SOFTWARE PROJECTS
- » CREATED BY: MATTHEW SMITH
- » BY THE SAME AUTHOR: MANIC MINER

The follow-up to *Manic Miner* is set in a sprawling mansion (bought with the profits from mining no doubt) and is both exciting and infuriating in equal measures. Gaming legend

Matthew Smith showers you with extra lives to help you collect the 83 flashing objects – and you need them, as the difficulty level in rooms like the Banyan Tree, Out on a Limb, and the Forgotten Abbey is utterly insane! Smith's Python-inspired characters and unforgiving gameplay has sealed *JSW's* place in Spectrum history and spawned a hundreds clones, the best of which is probably *Elite's Rollercoaster*.

REBEL STAR

- » RELEASED: 1986
- » PUBLISHED BY: FIREBIRD
- » CREATED BY: JULIAN GOLLOP
- » BY THE SAME AUTHOR: CHAOS, LASER SQUAD, REBEL STAR 2, REBEL STAR RAIDERS

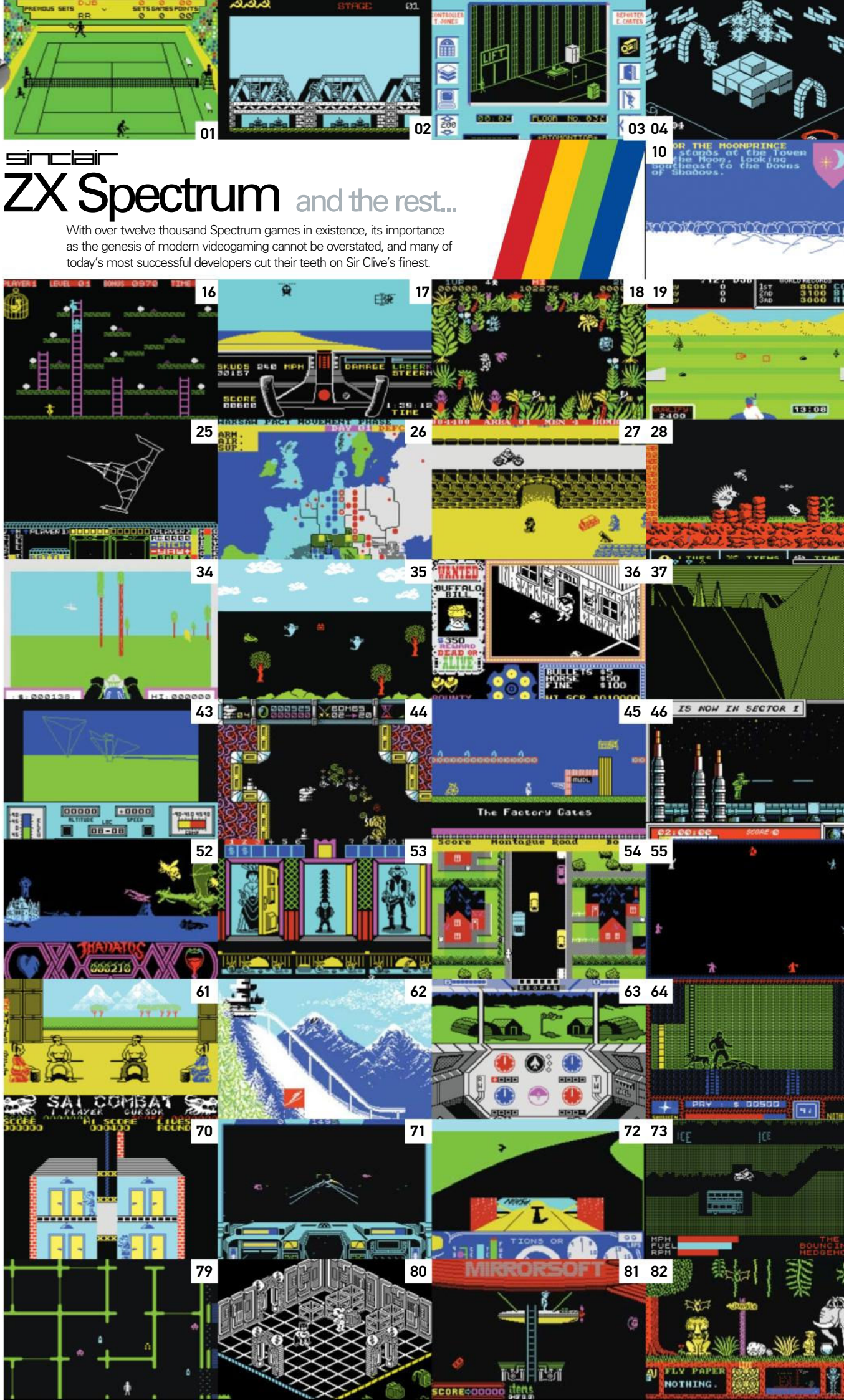
Just pipping Gollop's earlier masterpiece, *Chaos*, into our top ten, *Rebel Star* is a turn-based sci-fi strategy game in which you control either of two opposing forces in a moonbase battle (there was also a two player game on the flip-side of the tape and all for £1.99!). What seals *Rebel Star's* greatness is the pure strategy and cunning that must be employed to succeed; making the best of your forces' abilities and different armaments. Julian Gollop, where are you now?

ELITE

- » RELEASED: 1985
- » PUBLISHED BY: FIREBIRD
- » CREATED BY: TORUS
- » BY THE SAME AUTHOR: GYRON

No top ten could be complete without the obligatory conversion of the ultimate space trading game, and this Torus version remains faithful to Bell and Braben's original vision whilst at the same time adding some enhancements. That's if you could actually play the damn thing however, because *Elite* was the first ever game to utilise the Lenslock anti-piracy thingy, which managed to frustrate legitimate customers and pirates in almost equal measures. Fortunately *Elite* was worth it, with ultra-smooth and flicker-free frame rate, impressive magenta explosions, and for the 128k at least, three special missions.

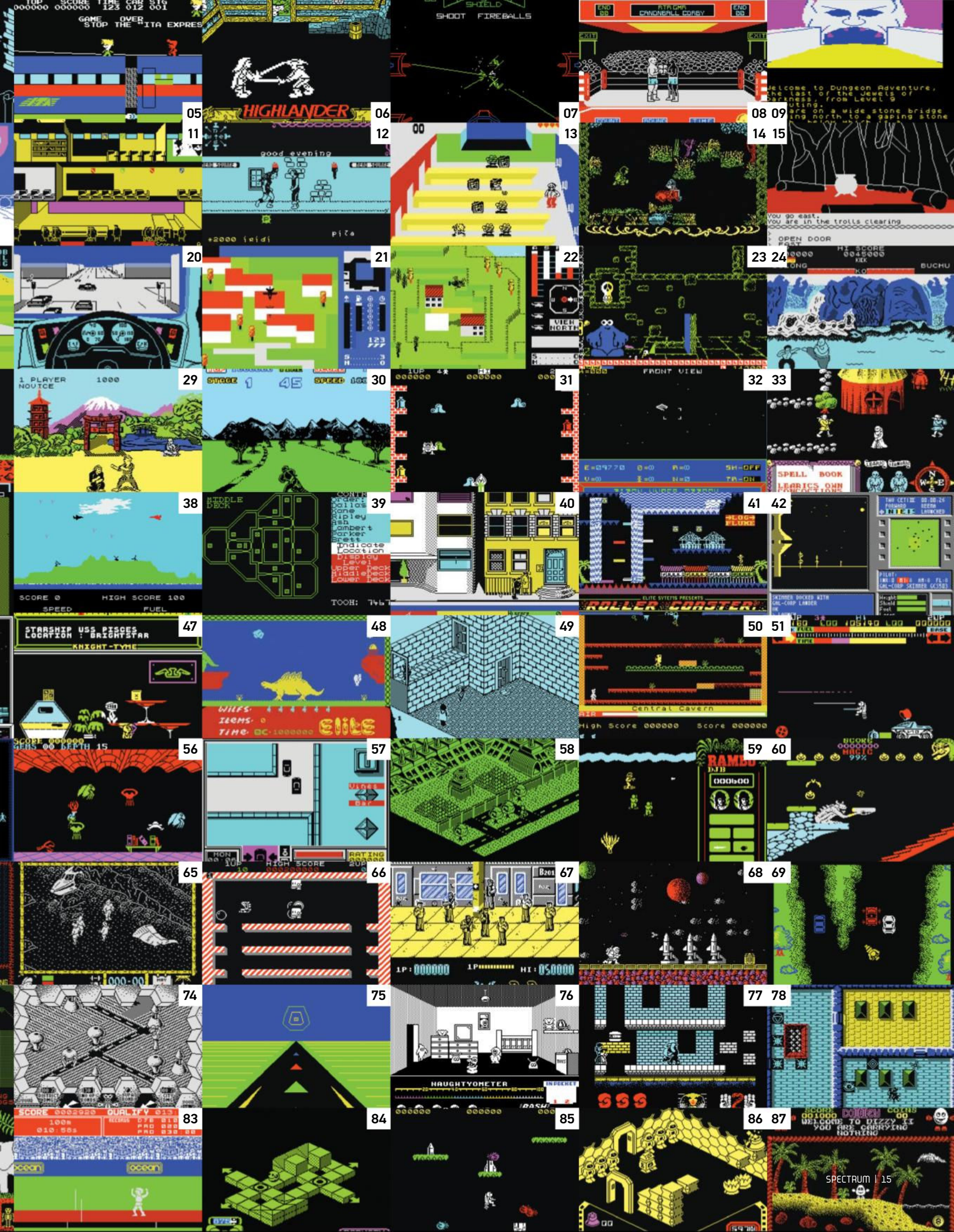




sinclair ZX Spectrum and the rest...

With over twelve thousand Spectrum games in existence, its importance as the genesis of modern videogaming cannot be overstated, and many of today's most successful developers cut their teeth on Sir Clive's finest.

- 01 MATCHPOINT
- 02 GREEN BERET
- 03 MAX HEADROOM
- 04 KNIGHT LORE
- 05 STOP THE EXPRESS
- 06 HIGHLANDER
- 07 STAR WARS
- 08 BARRY MCGUIGAN WORLD BOXING
- 09 DUNGEON ADVENTURE
- 10 LORDS OF MIDNIGHT
- 11 SKOOL DAZE
- 12 DUN DARACH
- 13 TAPPER
- 14 ROBIN O'D THE WOOD
- 15 THE HOBBIT
- 16 CHUCKIE EGG
- 17 KNIGHT RIDER
- 18 SABRE WULF
- 19 HYPERSPORTS
- 20 TURBO ESPRIT
- 21 TLL
- 22 CYCLONE
- 23 TRAPDOOR
- 24 YIE AR KUNG FU
- 25 STARION
- 26 THEATRE EUROPE
- 27 COMMANDO
- 28 SPIKEY HAROLD
- 29 WAY OF THE EXPLODING FIST
- 30 ENDURO RACER
- 31 PSSST
- 32 CODENAME MAT
- 33 FEUD
- 34 3D DEATHCHASE
- 35 C5 CLIVE
- 36 GUNFIGHT
- 37 THE SENTINEL
- 38 HARRIER ATTACK
- 39 ALIEN
- 40 CONTACT SAM CRUISE
- 41 ROLLERCOASTER
- 42 TAU CETI
- 43 MERCENARY: ESCAPE FROM TARG
- 44 CYBERNOID
- 45 TECHNICIAN TED
- 46 DAN DARE
- 47 KNIGHT TYME
- 48 KOKOTONI WULF
- 49 FAIRLIGHT
- 50 MANIC MINER
- 51 LUNAR JETMAN
- 52 THANATOS
- 53 WEST BANK
- 54 TRASHMAN
- 55 CHAOS
- 56 UNDERWURLD
- 57 MIAMI VICE
- 58 GLIDER RIDER
- 59 RAMBO
- 60 CAULDRON II
- 61 SAI COMBAT
- 62 WINTER GAMES
- 63 INFILTRATOR
- 64 SABOTEUR
- 65 WHERE TIME STOOD STILL
- 66 BUBBLE BOBBLE
- 67 RENEGADE
- 68 EXOLON
- 69 SPY HUNTER
- 70 ELEVATOR ACTION
- 71 STARGLIDER
- 72 CHEQUERED FLAG
- 73 WHEELIE
- 74 AMAUROTE
- 75 DEATHSTAR INTERCEPTOR
- 76 JACK THE NIPPER
- 77 COBRA
- 78 RANARAMA
- 79 HALLS OF THE THINGS
- 80 BATMAN
- 81 DYNAMITE DAN II
- 82 THREE WEEKS IN PARADISE
- 83 DALEY THOMPSON'S DECATHLON
- 84 BOBBY BEARING
- 85 JETPAC
- 86 ALIEN 8
- 87 TREASURE ISLAND DIZZY



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COBRA

BLAND MOVIE TIE-INS ARE A DISEASE. MEET THE CURE



- » PUBLISHER: OCEAN SOFTWARE
- » RELEASED: 1986
- » GENRE: SHOOT-'EM-UP
- » FEATURED HARDWARE: ZX SPECTRUM
- » EXPECT TO PAY: A FEW QUID



HISTORY

With *Cobra*, the legendary Jonathan 'Joffa' Smith took *Green Beret* and

basically went about injecting it with videogame steroids, humour and silliness, and in doing so created one of the most popular run-and-gun games to ever grace the Spectrum.

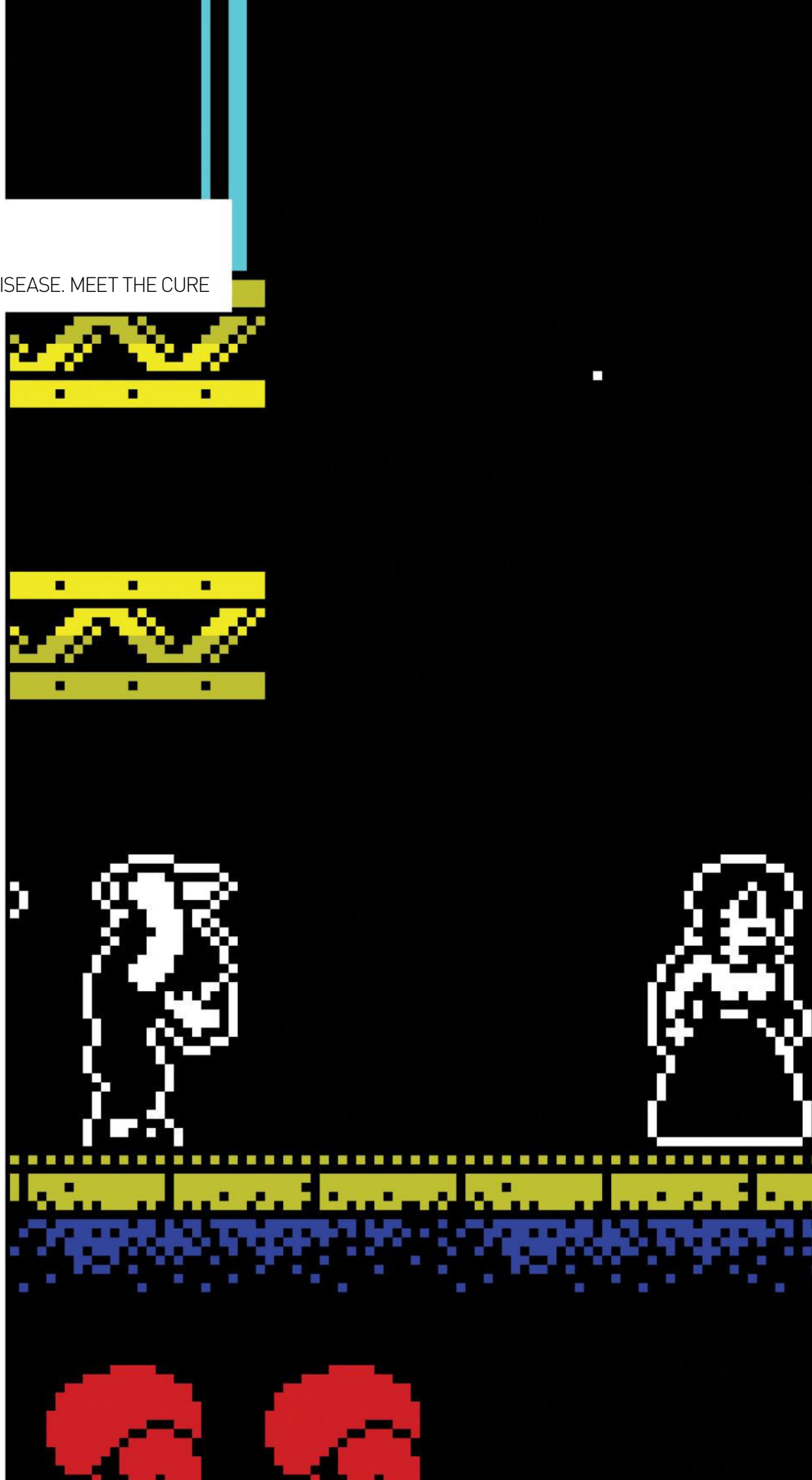
It depicts a crime-riddled world where women brandish bazookas, the police overcome thugs with headbutts to the face, fire hydrants are positioned on scaffolding, weapons are concealed inside hamburgers and ammo is measured in rubber ducks.

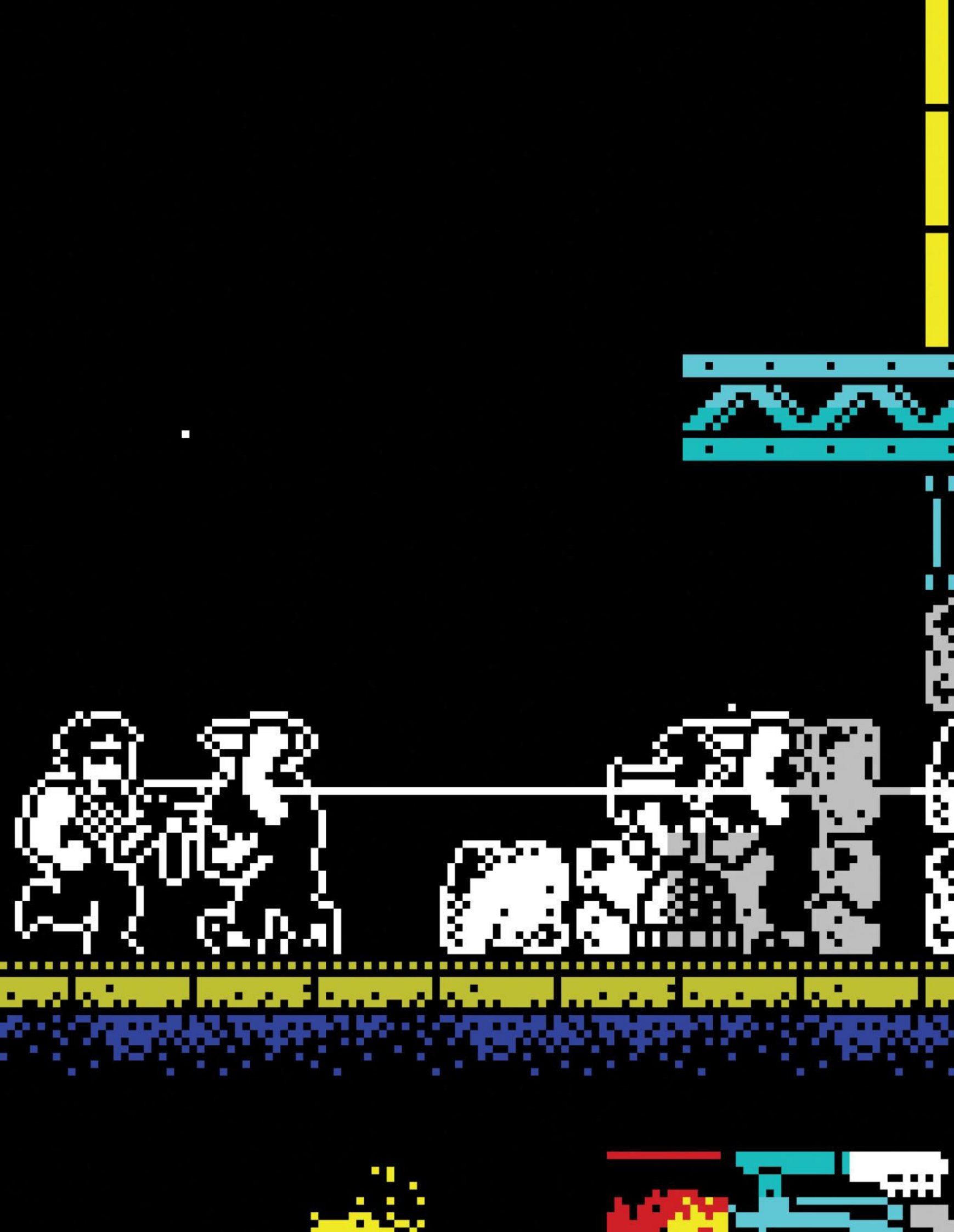
That's not to say that Smith's game adaptation was unrecognisable to fans of the movie. Our top-heavy hero looked like a convincing Stallone, with black T-shirt, shades and beefy muscles, and the action was pretty violent too, with fire being hilariously dubbed a 'murder' button, and women and prams getting walloped. You could even find Bridget Nielsen wandering its stages, who, once located, followed Marion 'Cobra' Cobretti around like a very tall lost puppy, but made up for her clingy actions by being a human shield.

With just three levels to beat, *Cobra* was short but sweet. The opening stage takes place in the gloomy streets of Los Angeles at night. The second sees Cobretti escape to the glorious countryside, and then, mirroring the finale of the film, the case is closed with a climactic battle between Cobra and the psychotic Night Slasher inside a steel mill.

To complete each stage you must consume all the burgers and duff up the enemies using their deadly ingredients, which included a knife, a handgun, an extremely satisfying laser-sighted machine gun, and a weird magic potion that turned our hero flashy-invincible for a short time. But why stop there? Why not have a burger that transformed him into an actual cobra?

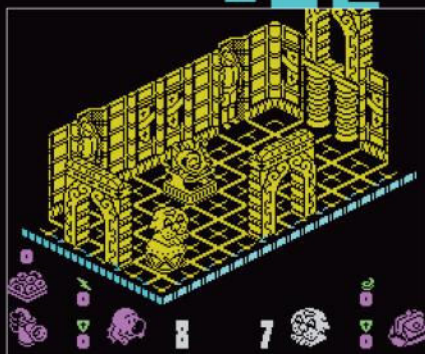
It's fair to say the Speccy version of *Cobra* paid only tongue-in-cheek reverence to the movie it was based on, but let's face it: compared to the sluggish C64 and CPC versions, it was certainly better for it.



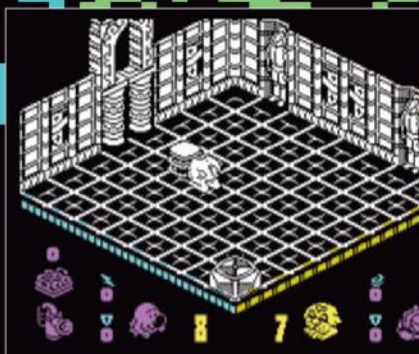


THE MAKING OF... **HEAD OVER HEELS**

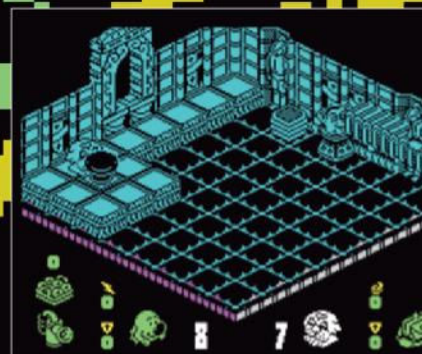
The Spectrum had a massive number of excellent isometric adventures in its library, but few were as inventive, imaginative, and downright crazy as *Head Over Heels*. Jon Ritman reveals the method behind the madness of his surreal Spectrum masterpiece



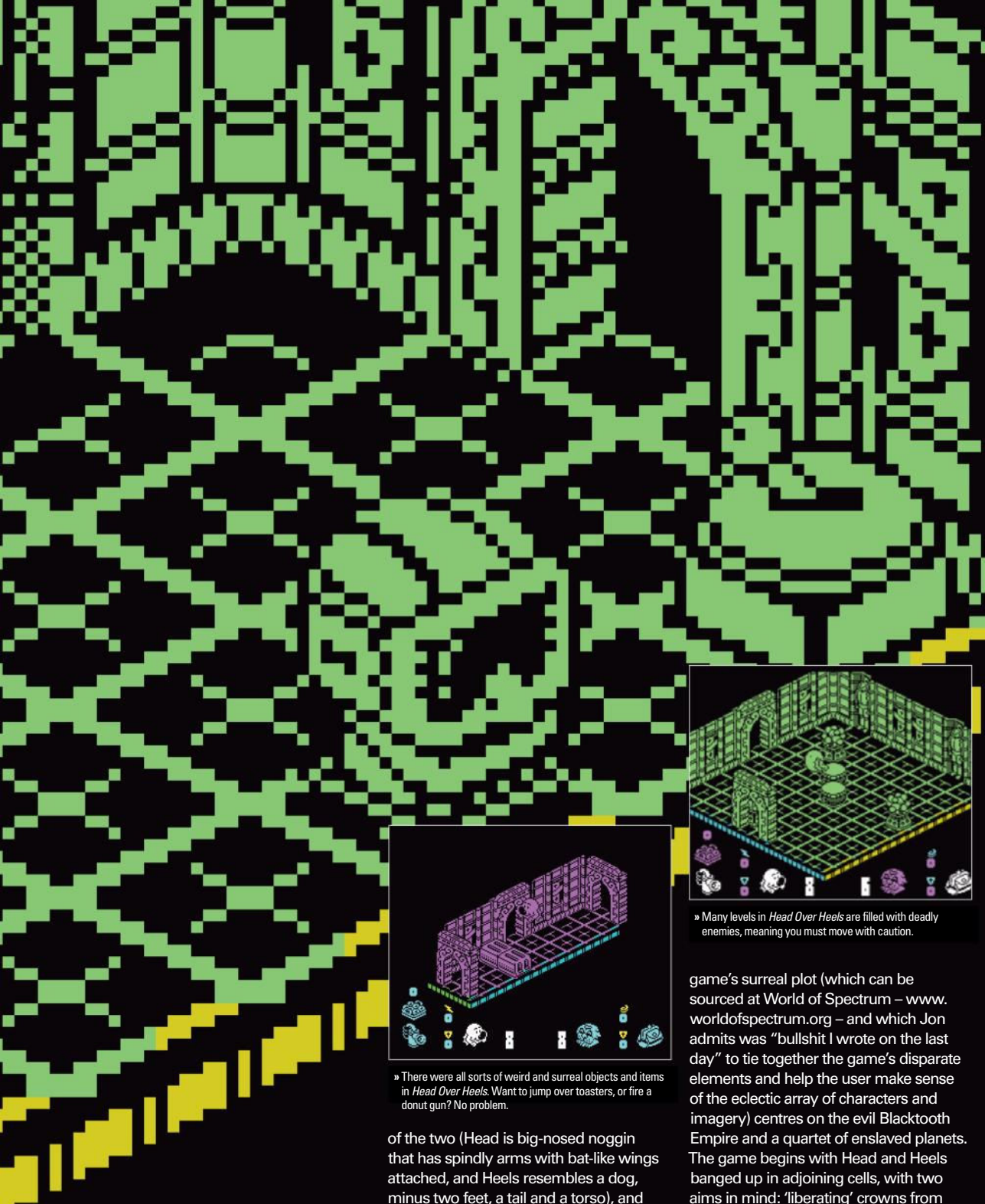
» There's something really fishy about this game! Heh heh heh! (I'm here all week...)



» Heels is pretty rubbish when it comes to jumping. Fortunately handy items like this put a spring in his step.

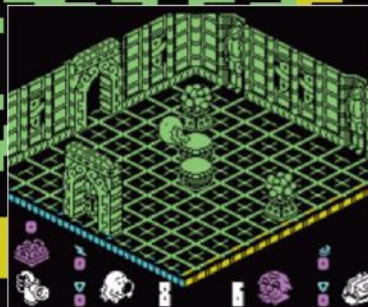
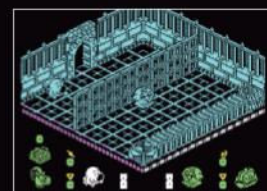


» "Getting that bit-part in *Doctor Who* was a mistake," mused Prince Charles, as Heels controlled him via a giant joystick.

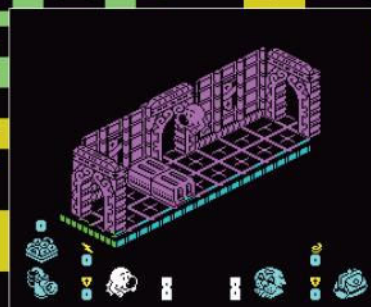


SO NEAR AND YET SO FAR

The symbiotic partnership enjoyed by Head and Heels is central to the game, and you won't progress far without managing to get the pair together. As if the potential for a major power-up wasn't enough to enthuse players (when Head and Heels are joined, the pair enjoy both the speed of Heels and Head's jumping power), Jon added further elements to urge players onwards. If Head wanders through the door from his start point, he'll see Heels in the adjoining cell, separated from him by an impassable barrier. And shortly afterwards, the pair cross paths, Heels in a tunnel and Head on top of it. "The tunnel was inspired by a section in Ultimate's *Alien 8*, where you come out on a balcony, able to see a room that you can't get down to," explains Jon, adding that he "liked the 'tease' element to it," and therefore used the same device to torment players in his own game!



» Many levels in *Head Over Heels* are filled with deadly enemies, meaning you must move with caution.



» There were all sorts of weird and surreal objects and items in *Head Over Heels*. Want to jump over toasters, or fire a donut gun? No problem.

of the two (Head is big-nosed hoggish that has spindly arms with bat-like wings attached, and Heels resembles a dog, minus two feet, a tail and a torso), and yet their unique look fits in with their utterly surreal surroundings. And when combined with the game's then-epic scale and plentiful (and often infuriating) puzzles, *Head Over Heels* was ensured a permanent position in the top-list of any aficionado of 8-bit gaming.

For the uninitiated, *Head Over Heels* is an isometric arcade adventure, where the player guides the stars of the show – who both happen to be spies – around various locations, solving puzzles. The

game's surreal plot (which can be sourced at World of Spectrum – www.worldofspectrum.org – and which Jon admits was "bullshit I wrote on the last day" to tie together the game's disparate elements and help the user make sense of the eclectic array of characters and imagery) centres on the evil Blacktooth Empire and a quartet of enslaved planets. The game begins with Head and Heels banged up in adjoining cells, with two aims in mind: 'liberating' crowns from the clutches of the evil Blacktooth Empire, and escaping to Freedom, their home planet. Luckily, Blacktooth prisons appear to be progressive, and teleporters are found near the two creatures' starting locations, so they can begin their quest.

When *Head Over Heels* was released, back in 1987, almost every publication from Sinclair User to Zzap!64 was full of praise. But *Head Over Heels* always felt more at home on the Spectrum and Amstrad – the C64 was lumbered, by

IN THE KNOW



- » PUBLISHER: OCEAN SOFTWARE
- » DEVELOPER: JON RITMAN (WITH BERNIE DRUMMOND)
- » RELEASED: 1987
- » GENRE: ARCADE ADVENTURE
- » EXPECT TO PAY: A FEW QUID



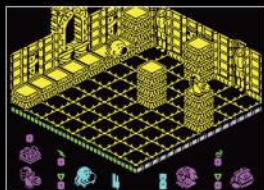
Delve into videogaming history and you'll be met with a plethora of strange-looking characters, along with a healthy population of anthropomorphic animals, out to right wrongs or to steal Sinclair C5s. The characters in Jon Ritman's timeless classic *Head Over Heels* are a rather unsettling combination

"BATMAN AND HEAD OVER HEELS WERE BASICALLY UNPLANNED; I MADE THEM UP AS I WENT ALONG, AND JUST KEPT ADDING STUFF UNTIL THE SPECTRUM WAS FULL" JON RITMAN

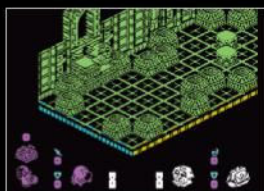
THE MAKING OF... HEAD OVER HEELS



» If this is to scale, it's going to be a bugger to lug those crowns back to Freedom.



» Head will not get far without his precious doughnut gun. Be sure to pick it up before reaching the market.



» This room looks huge, but it's actually a clever illusion.

THE REMAKING OF A CLASSIC

Despite the popularity of *Head Over Heels*, few remakes of the game have surfaced, largely due to its complexity. However, a few years back, Tomaz Kac took up the challenge (apparently because of a "hastily scrawled diagram posted on the Retrospec mailing list about how you can't properly sort isometric games without complex masking," according to co-conspirator and graphic artist Graham Goring), resulting in a faithful update, but with wildly improved graphics and lighting effects that put the original 16-bit conversions to shame. "I've seen the remake, and it's pretty good," says Jon, although he grumbles that "they handled the walls and doors differently, which has damaged the gameplay". Minor problems aside, the remake is impressive, and, for once, it's not only PC users that can join the party – via the game's microsite at <http://retrospec.sgn.net/games/hoh/>, those who favour Mac, Linux and BeOS can download ports for their computers.



comparison, with a sluggish conversion. Unsurprisingly Jon is an unashamed fan of Sinclair machines (and, by association, Amstrad's output), and his first experience with programming was with one of Sir Clive's earliest models. "I was working as a TV engineer for Radio Rentals when they started talking about renting out computers. It occurred to me they would need engineers that knew their way around them, and so I bought myself a Sinclair ZX81." Within a day, Jon was hooked, and every evening was spent ploughing through manuals and learning Basic. A week later, Jon was immersed in machine language, writing his own hex editor, and realising that he needed to come up with a project to work on: "All I could think of was a game, and within a month I sent my first effort to publishers; a day later, I got a call from Artic Computing, who said they'd buy it".

Initially, platform preference was largely irrelevant, and the ZX81 won out over Commodore's early output purely on price, but as Jon progressed to the Spectrum, he felt vindicated in his decision to buy British: "I always preferred the Spectrum to Commodore's range, because of the freedom it allowed me when being creative – Commodore's hardware pushed games designers towards sprite-based scrolling games." With 48 KB to play with, Jon crafted increasingly complex projects, including the Spectrum's answer to Commodore's *International Soccer*, the renowned *Match Day*; but it was his next game that really struck a chord, while also forming the basis for *Head Over Heels*. "When I delivered the *Match Day* master to Ocean, I was given a copy of the then-unreleased *Knight Lore*. When I saw it, my jaw dropped – it was just what I'd always

wanted: a Disney film you could control," recalls Jon, who says he then set about figuring out how to achieve the masking process used for the display, and ended up bettering *Knight Lore's* effort.

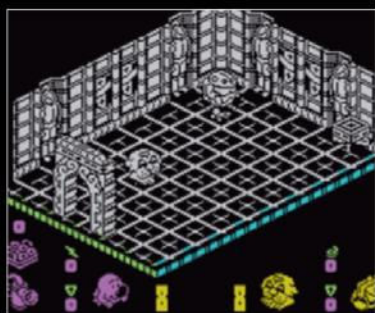
The game that used Jon's new system – *Batman* – would influence his follow-up. "For the gameplay, I decided what abilities *Batman* would have and then took them away," says Jon. "I created objects that would give him those abilities – jumping, carrying, gliding – with the idea that you started with nothing and would have to earn each ability. This worked well, and so when working on *Head Over Heels*, I did the same thing." Those who've played both games will notice other similarities, such as temporary extra powers and the 'resurrection' system, but *Head Over Heels* has one marked difference to Ritman's first adventure: the symbiotic relationship between its lead characters. When *Head and Heels* meet up, *Head* can plonk himself on top of *Heels*, and the combined freakshow creature inherits both of their capabilities. Alternatively, each character can wander off on their own, providing players with possibilities if they get stuck on one of the game's many puzzles. "I have been praised for the symbiotic relationship over the years, with many considering it genius, but at the time all I thought was that two characters, each having their own abilities, would enlarge the number of puzzles I could come up with," explains Jon.

It's not that Jon's not proud of his game – far from it. It's just that he doesn't appear to want to take credit for things that 'just happened', or where a quick, simple idea worked perfectly. For fans of such a renowned retro game as *Head Over Heels*, and one that has so many disparate elements that work so

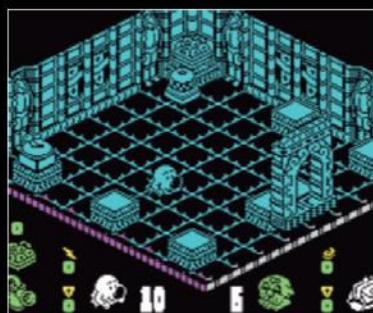
well together, it's surprising to hear that there was no grand plan. "Both *Batman* and *Head Over Heels* were basically unplanned – I made them up as I went along, and just kept adding stuff until the Spectrum was full," explains Jon. "Once I had the basic engine, I would sit down to create some rooms, and come up with ideas." For each planet in *Head Over Heels*, maps were designed to take advantage of the two-character dynamic, with sections built where the two spies' paths would cross; further elements were then added that forced them to split and meet elsewhere. "I would then add the puzzles, making up each in turn, with no pre-planning at all," says Jon. "If I didn't have existing code to handle it, I would program it in and then ring up Bernie to ask for appropriate graphics."

Ah, yes: the graphics. Although *Batman* was a good-looking game, *Head Over Heels* betters it and then some. The graphics are quirky and eclectic, with a strong sense of individuality and character. Jon is keen to credit partner-in-crime Bernie Drummond for that aspect of the game. "Bernie has a wild imagination, and seeing as how the entire game was like a bizarre fantasy, I just gave him free rein to make things," explains Jon, when we ask how the designs for the various on-screen objects came to be. "I would just tell him the size I wanted and roughly what I was going to do with it, and he would then give me a bunch of graphics to choose from. I made a point of never worrying about differences in scale, but just chose the best looking stuff." This resulted in legions of Daleks with the heads of monkeys, elephants and even Prince Charles, vicious jet-pack-clad rat-like robots, and hostile, squat droids that look rather like bollards. As if that

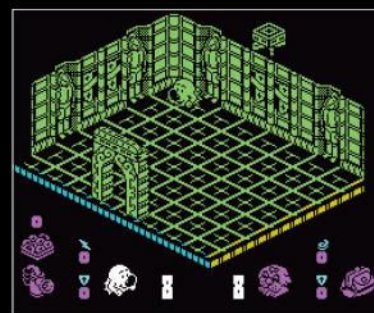
"OFTEN, I WOULD HAVE A LOAD OF BERNIE'S GRAPHICS THAT WERE JUST WAITING FOR A USE, AND SO WHEN I NEEDED A 'SAVE GAME' FEATURE, I SAW THE LOVELY FISH AND MADE UP SOME BULLSHIT IN THE PLOT TO EXPLAIN IT" JON RITMAN



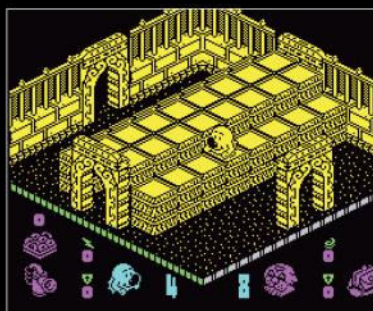
» This enemy is fast, but Heels is faster. Out race him, so that you can jump onto that switch in the corner.



» Head leaps towards a tray of doughnuts, claiming his rotundness is down to being 'big-boned'.



» Falling from great distances isn't a problem for Head, as he has complete control over his movement.



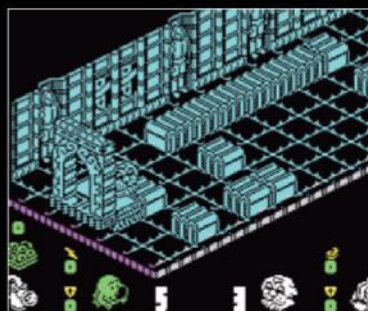
» This is one of the few crossover points that exist before Head and Heels eventually meet up with each other.

motley collection wasn't surreal enough, other items ended up having rather more bizarre uses, including huge sandwiches that are used as moving platforms for accessing otherwise inaccessible areas of a room, and the aforementioned giant fish, used as a resurrection device, providing players with a 'second chance' of sorts when all lives are lost. "Often, I would have a load of Bernie's graphics that were just waiting for a use, and so when I needed a 'save game' feature, I saw the lovely fish and made up some bullshit in the plot to explain it," says Jon.

In the universe of *Head Over Heels*, even the more 'normal' items can work in a way other than how you'd expect. For example, early on, Heels can grab a bag, enabling him to pick up objects. However, the bag has a hole in it, which means items are lost if Heels moves to a new room. "This was a method of keeping puzzles in a single room," explains Jon. "I decided on this tactic after playing a game where, like in *Head Over Heels*, you had a certain freedom regarding where you went. This game would have an item in one room that you needed in another, but

often you might come across the item long before you saw the puzzle, having no idea what it was for. You'd leave it behind and by the time you found the puzzle, you'd forgotten the item ever existed." And so for all of the lack of planning when creating *Head Over Heels*, it's clear there was plenty of fine-tuning, in order to produce the most optimal experience. "I used to have a development kit in my living room. Needless to say, friends would come round and want a quick go on the game; I would watch carefully, and anything that proved a major problem would be noted and changed," remembers Jon. "For example, I initially put physical and mental puzzles in the same room, but by watching others play, I spotted that they'd often suss what they needed to do – the mental part – but after failing physically a couple of times, they'd assume they were wrong and would therefore try something else. I realised I needed to separate the two puzzle types."

Luckily for Jon, he was able to concentrate on these important details, because he reckons that despite all of the game's complexity, puzzles and graphics, *Head Over Heels* wasn't a technical challenge: "Once I'd sussed the method, it was pretty damn easy and conversions to other Z80 machines, such as the Amstrads, was simplicity itself". The 6502 and 68000 conversions, however,



» You're a few screens away from the market. Negotiate these conveyor belts and you're almost there.

were programmed by others, although via a line-by-line translation that meant they even ended up with the same bugs. "The only major change for the 6502 version was to amend a couple of rooms that had particularly high item counts that strained the resources of the C64's weedy processor," says Jon. The only bleak coding moment Jon admits to was "putting off the scary bit of converting the *Batman* engine to handle the two characters". In the end, there was nothing left to do, and so he had to bite the bullet and get on with it. "Amazingly, it only took two hours," he says. "I was so relieved!"

DEVELOPER HIGHLIGHTS

MATCH DAY

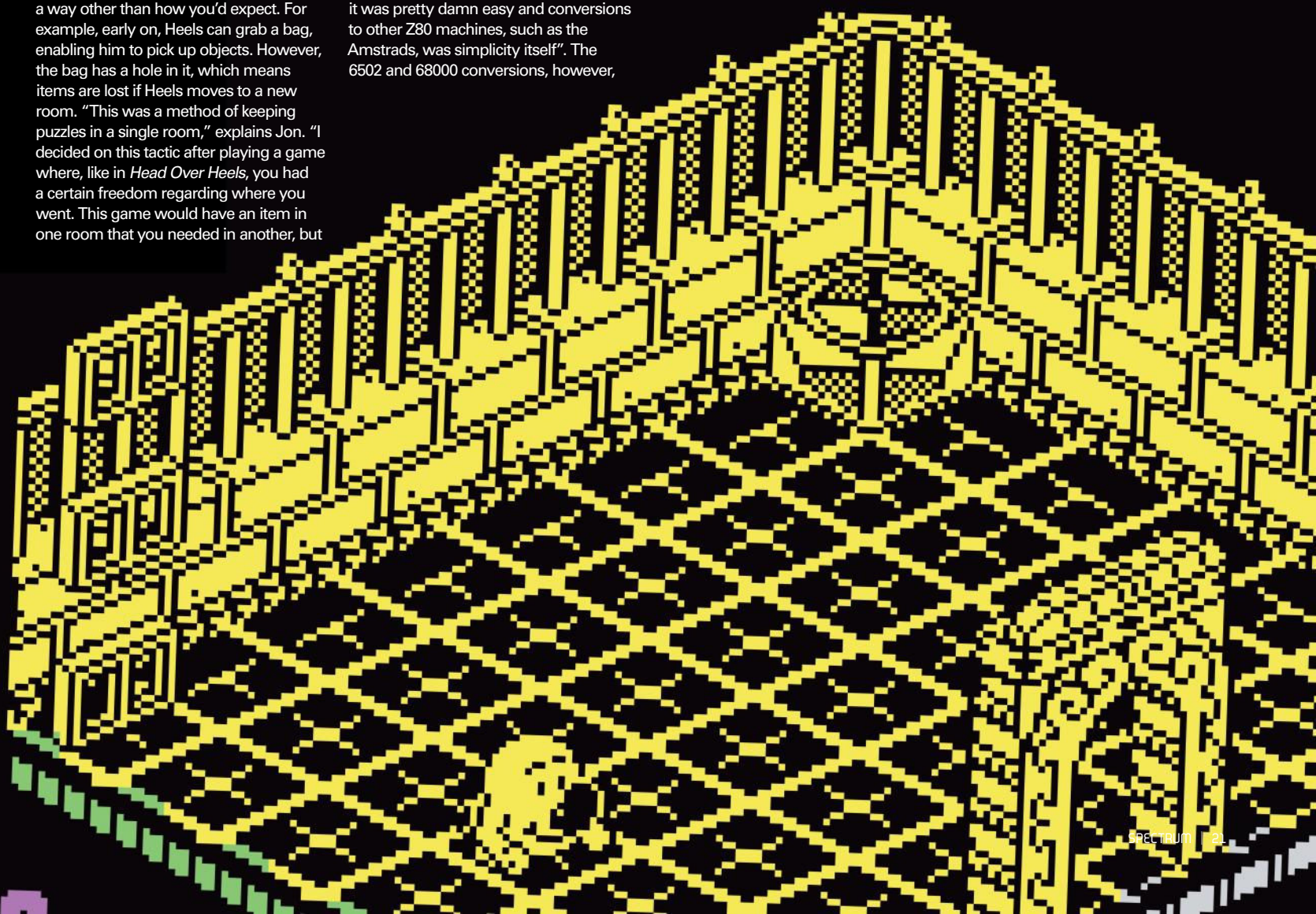
SYSTEMS: ZX SPECTRUM
YEAR: 1985

BATMAN (PICTURED)

SYSTEMS: ZX SPECTRUM,
AMSTRAD CPC
YEAR: 1986

MONSTER MAX

SYSTEMS: GAME BOY
YEAR: 1994



When it comes to Spectrum success stories, no developer was as big, or as respected as Ultimate Play The Game. Based in Ashby-de-la-Zouch, its founders, Tim and Chris Stamper started off in the arcade industry, before plying their trade on the ZX Spectrum. The results were some of the finest videogames to ever appear on the machine, ranging from the arcade thrills of Jetpac, to the ground-breaking visuals of Knight Lore. Now known as Rare, it has worked for both Nintendo and Microsoft, and remains an important developer. This is its story...



IN BRIEF

Originally formed in 1982 by brothers, Chris and Tim Stamper, Ultimate is one of Britain's videogame success stories and is still thriving 30 years later. Initially creating games for the ZX Spectrum, Ashby Computers & Graphics Ltd (as it was then known) later became Ultimate Play the Game, and finally, Rare. Along the way, the Tvycross-based developers formed a close partnership with Nintendo and had a string of hit titles across a wide range of its consoles. Now owned by Microsoft, Rare is currently working on Kinect and new Xbox 360 titles.



Ultimate Play The Game



If you owned an 8-bit computer in the Eighties, then chances are you had at least one game that boasted the famous blue and green logo of Ultimate Play The Game on its loading screen.

If you owned any of the Nintendo systems from the NES up to the N64, chances are you played more than a few games bearing the Rare logo. And if you're one of the lucky few to nab an Xbox 360... well, you see where this is going.

Most developers are lucky to rise to the top in one era of gaming without stumbling or being swallowed by a faceless rival. And while Ultimate may now be a part of the Microsoft empire, the company still retains its own identity and acclaim. But, as with most of these stories, things began on a much smaller scale. It was 1980 and the 21-year-old Chris Stamper, then studying physics and electronics at Loughborough University, was bowled over by the emerging world of micro technology – and in particular the way that computers could be used to control things on the screen.

With off-the-shelf home computers still a pipe dream he assembled his own from a kit – the RCA CDP1802 – the fastest machine around at the time. Teaching himself how to program, Stamper created a traffic light management system and was hooked. Quitting his degree course, he took a job working on the circuit boards of early arcade machines, converting *Space Invaders* into *Galaxian* and fixing bugs. When the ZX80 arrived on the high street, he snapped one up and spent two years mastering the intricacies of games programming. Finally convinced he had a handle on how to create better games than the

early commercial efforts, Chris joined forces with his younger brother Tim, his girlfriend (and later wife) Carole Ward, and an old college friend, John Latchbury. They even had some transatlantic connections thanks to their arcade work, with Joel Hochberg of Miami-based Coin-It Inc as their American contact.

With these basic pieces in place, in 1982 the group formed Ashby Computers & Graphics Ltd. Funding their early growth by selling pre-made arcade conversion kits, they worked in the house next door to their parent's newsagents in glamorous Ashby-de-la-Zouch, before beginning trading under the title Ultimate Play the Game. Chris and John concentrated on the programming, while Tim and Carole handled graphics. It was a small but efficient set-up. In an interview with Keith Ainsworth's *Retrogamer* fanzine, the Stamper brothers looked fondly back on these formative years.

"They were great times. When we had deliveries we would store goods in the toilet, on the stairs, in our bedrooms. We had no money – when bills came in we all chipped in. The electricity one was always huge but we made sure that was paid first."

After six months of mounting debts, in May 1983 Ultimate struck gold with its first commercial release – a single-screen shooting game for the ZX Spectrum called *Jetpac*. In an era when computer owners gobbled up any new software, as much for the novelty as for playability, *Jetpac* delivered both in spades. Fast, furious and enormous fun, it played more like the arcade machines Chris had worked on as a young man than a first effort on a new format, and it set a high benchmark

DEVELOPER LOOKBACK



» During the 8-bit era Ultimate's talent was unmatched.

» Undeniable continued the adventures of Sabreman.

» Tranz Am was an interesting racer from Ultimate.

JETMAN'S TRAILER PARK

As far as gaming urban legends go, it's up there with the gigantic space dredger in *Elite* and nude Lara in *Tomb Raider*. The loading screen and inlay artwork of *Lunar Jetman* clearly shows the moon buggy towing a trailer – yet it doesn't appear in the game. Or does it?

An anonymous player – some still point the finger at either Chris or Tim Stamper – sent a screenshot into *Crash* magazine showing the buggy hooked up to the legendary trailer, thus sending thousands of gamers scurrying to spend agonising hours exploring every inch of the freakishly tough game looking for the space caravan. Debate raged in letters pages and playgrounds across the UK, as gamers boasted that they'd seen it themselves.



So did it exist?

Er, no. An enterprising soul disassembled the entire game code and found not one trace of a trailer among the sprite files, thus conclusively disproving the myth. But did you know about the helicopter in *Sabre Wulf*? That's real. Honest. We've got pictures and everything...

for the other nascent British software houses to match. Selling over 300,000 copies, *Jetpac* ensured that with only one game to its credit, Ultimate already had a turnover in excess of one million pounds.

Its experience in dealing with arcade companies in the US and Japan meant that unlike many of the emerging UK developers, Ultimate combined a passion for technology with shrewd business sense. At a time when many games were still written in BASIC, Chris and Tim were beaver away in Z80 machine code, making their games faster, slicker and more compelling than their competition. While the image of the naïve bedroom Speccy coder prevailed – no doubt inspired in part by the eccentric professor appearance of Sir Clive himself – the Stampers were already thinking ahead, and building a business plan for the next generation of games hardware.

But in the meantime they kept servicing the existing market, and within two months of *Jetpac*'s launch they'd added another three games to the Ultimate portfolio – the ozone-destroying pesticide game *Pssst* hit in June, with *Tranz Am* and *Cookie* following in July. As 1984 dawned, Ultimate's output was beefed up to take advantage of the 48k Spectrum and the *Jetpac* sequel, *Lunar Jetman*, and *Atic Atac* made the most of the new processing muscle.

Lunar Jetman introduced scrolling gameplay, as Jetman tried to get his Moonglider buggy back to base, but *Atic Atac* in particular left rival titles in the dust. A vast maze game, it was one of the first titles to feature a multi-level game map, with stairs leading up and down, secret doorways linking rooms and trapdoors plunging you down to the level below. You could even choose one of three heroic characters, and the choice actually impacted the gameplay by determining which hidden passageways you could use. The aim of the game was simple – find the three pieces of the ACG key (a cute nod to Ashby Computers & Graphics, of course) and escape from the front door of the castle. However, the sheer size and complexity of the game made it a mammoth undertaking for players. 1984 also saw the computer magazine trade take notice of the rising popularity of games, with

many of the existing technical titles introducing a more gamesy slant, and the launch of *Crash*, a magazine that shoved the serious side of computing out of the way and appealed directly to the growing number of kids and teens hunched over their rubber keyboards. *Crash* scored both *Atic Atac* and *Lunar Jetman* highly, awarding *Atic Atac* 92% and *Jetman* 95% (with a staggering 100% awarded for Value For Money). Thus began a long and fruitful relationship between Ultimate and Newsfield's mag. In an exclusive 1987 interview for *Crash*, Tim Stamper admitted that Ultimate had always had a soft spot for the Ludlow-based publication.

"CRASH always gave us fair reviews," he told editor Roger Kean, "but with some of the other magazines, if we didn't advertise, the product got a bad review – and I was actually told by a few of the other companies that they thought the problem existed as well. So we steered clear of speaking to anyone, and if they liked the product great, and if they didn't I wasn't bothered, because if the sales were there people were buying it."

Already the mystique surrounding these gaming alchemists was growing, cementing their reputation as a company that followed its own rulebook. They didn't do exclusives, they didn't do interviews or press visits and they sent out review copies to all the mags at the same time, usually right before the game went on sale. This veil of secrecy wasn't deliberate – at least not at first. It was simply because the team was small and incredibly busy, so dealing with journalists was not a priority. As time went by though, Tim and Chris realised that the air of mystery was actually beneficial to the company – giving them a sort of Willy Wonka meets Stanley Kubrick allure, the reclusive geniuses of the Spectrum world.

Between the best-selling games and the almost complete lack of information about the people who made them, Ultimate became one of the first games companies to not only earn brand recognition, with gamers looking forward to the next release because of the company rather than the concept, but also one of the first developers to have a

"KNIGHT LORE, THE SEQUEL TO SABRE WULF, TOOK THE FUZZY, FEATURELESS LOOK OF EARLY ISOMETRIC PIONEERS LIKE ANT ATTACK AND TURNED IT UP TO ELEVEN"

» Lie all early Ultimate games. Sabre Wulf came with no instructions

» Too many cooks spoil the broth!

bona-fide fanbase. And if Ultimate kept the press at arm's length, the opposite was true of the people who played their games.

"We could have expanded, like some companies did, with a large fan club and giveaways and posters to buy" Tim told *Crash*, "And we could have said, 'If you like Ultimate, buy the games, buy sweatshirts,' but in fact we gave them all away. If anyone asked us for a sweatshirt or a cap we said 'well, you can have it'. We were just interested in seeing the software out there and getting fair reviews."

The games kept coming, and so did the innovations. *Sabre Wulf* was the first Spectrum game to abandon the traditional £5.50 price point, leaping to a then unimaginable £9.95. The idea was to try and stop people letting friends tape the games, assuming that if people paid more for something, they'd be less willing to let someone else swipe it for free. The price hike didn't harm *Sabre Wulf's* sales though, and higher prices soon became standard for all Spectrum software.

It was their next release that truly defined Ultimate for many gamers though. While 3D graphics weren't completely new *Knight Lore*, the sequel to *Sabre Wulf*, took the fuzzy, featureless look of early isometric pioneers like *Ant Attack* and turned it up to eleven. With large, bold sprites and intricate room designs, it isn't overstating the case to say that *Knight Lore's* Filmation graphics engine did for gaming what sound did for the movies. It opened up the gameworld, allowed gamers freedom of movement in all directions, and gave designers the chance to devise ever-more fiendish challenges. It's safe to say that without *Knight Lore*, there'd be no *Tomb Raider*, and modern gaming would look very different. And yet, amazingly, *Knight Lore* was finished before the 2D action of *Sabre Wulf*. Showing their now customary business acumen, the Stamper's realised that the market wasn't yet ready.

"If we released *Knight Lore* we wouldn't have sold *Sabre Wulf*", Tim told *Crash*, "There was a little bit of careful planning in there. We just had to sit on it because everyone else was so far behind." And so it came to pass that a defining classic of the 8-bit era sat on the shelf until the time was right.

Once the 3D floodgate was opened, there was no stopping Ultimate. *Alien 8*, *Nightshade* and *Pentagram* all used the same viewpoint to great effect. By the time the western adventure *Gunflight* came around in 1986, reviewers were starting to express misgivings about Ultimate's reliance on their Filmation technique, and Chris and Tim were realising that they'd pushed the Spectrum as far as it could go. While most of the Britsoft publishers saw their future in the imminent arrival of 16bit computers like the Commodore Amiga and Atari ST, the Stampers had their eyes on a different prize. Thanks to their arcade contacts, Chris and Tim had been following the development of consoles coming out of Japan. In fact, as far back as 1983, when *Jetpac* was state of the art, they were tinkering with a NES console, and figuring out how to make games for it.

"We knew a market was going to boom in Japan and America, and we set Rare up to handle that", said Tim in 1987, "Obviously we didn't want to give too much away because we needed time to develop our associations before they really became aware of it."

For a company seen as quintessentially English, it was a bold but shrewd move for the pair. Retaining a stake in Ultimate, they sold off the label to US Gold and moved over to their new company – Rare. And as Ultimate withered away, offering only the *Collected Works* compilation as a farewell, for most British gamers the secretive whiz kids seemed to vanish from the scene.

In actual fact, having convinced Nintendo to allow it official access to the NES development circuit, Rare was incredibly busy – turning out dozens of titles for the console, and licensing them to American publishers. Going from being the toast of the town in the Spectrum market to an anonymous code factory for a weird Japanese toy probably seemed like lunacy to their rivals, but by 1989 Rare was pumping out 17 titles a year rather than the five or six they used to produce as Ultimate. From major TV and movie tie-ins, to original concepts, Rare kept delivering products on time, on budget and racking up impressive sales for their US paymasters. It didn't take long

THE MYSTERY OF MIRE MARE

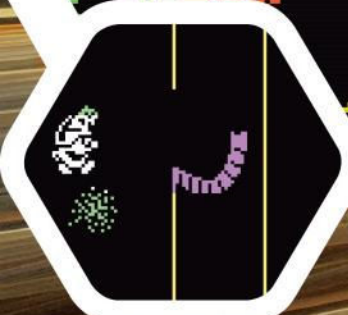
The ending of *Undervurde* featured three exits from the castle, each bringing up an ending screen highlighting one of three planned sequels in the Sabreman saga. The first, *Knight Lore*, we all know about – it revolutionised 8-bit gaming. A second sequel, *Pentagram*, followed in 1985, but what of the promised third Sabreman game, the cryptically titled *Mire Mare*?

As well as being trailed at the end of *Undervurde* and *Pentagram*, it was briefly mentioned in *Sinclair User's* June 1987 issue where they stated that "US Gold knows nothing about it and Ultimate is, as usual, locked in a bunker and not talking to anybody." Other than those tantalising hints, the existence of the game slowly slipped into the realms of myth.

However, a recent interview with a conveniently anonymous ex-Ultimate employee on the Ultimate Appreciation website claimed that the game was not only pretty much completed (before *Gunflight* came out, no less) but that it was held back because Chris and Tim Stamper wanted it to be the big Spectrum finale for the Ultimate brand. But by that point Ultimate was in the hands of US Gold and the Stampers were – allegedly – so unimpressed with the large corporation's desire to focus on budget re-releases rather than investing in new titles that they pretended *Mire Mare* wasn't even close to being finished, just to keep it out of US Gold's clutches. Everyone moved on and the code for *Mire Mare*, so painfully close to completion, was damned to an eternity in limbo.

Fact or fiction? Well, frankly the story reeks of rampant fan speculation or industry rumour mongering, as nothing in Chris or Tim's history suggests the sort of people who'd let a great game, months of work and a sizeable profit sink into oblivion just for the sake of a petty grudge, but who knows? Maybe one day some completed code will bubble up from out of the online soup and we will know the truth for sure...

DEVELOPER LOOKBACK



► Nightshade was fun, but samey.

ULTIMATE HOMEBREW

Given their iconic status in the minds of most retro gamers, and the fact that ROMs of the originals are strictly forbidden, it's no surprise that the Ultimate games are well represented on the homebrew remake scene. *Jetpac* leads the way, thanks to its simple gameplay, with dozens of variations. Most capture the charm and fun of the original, but some go that extra mile. *Jetpac* 2003, available on Remakes.org, delivers 3D graphics and varied levels while *Super Mario Pac* (www.hermitgames.com) combines the water-squirting fun from *Mario Sunshine* with *Jetpac* gameplay to hilarious effect. *Lunar Jetman* receives similar treatment in *Looney Jetman* over at www.retro-games.co.uk, in a game that finally includes the infamous trailer.

A gorgeous looking update of *Knight Lore* can be downloaded from classic-retro-games.com, and while it doesn't add anything beyond modern graphics, the sheer size of the game is impressive. *Atic Atac* fans can choose between a straight remake from MinionSoft (www.minionsoft.com), or *The Burps*, an *Atic Atac* inspired title that features a rather dubious sheep obsession. Get that curio from www.ovine.net. *Sabre Wulf* is well represented by Sandwell Software (www.dexfx.pwp.blueyonder.co.uk) whose remake is spookily accurate – but retains the flaws of the original as well as its plus points.

And finally, the swarthy gents at RetroSpec (retrospect.sgn.net) offer up groovy new PC versions of *Jetpac*, *Lunar Jetman*, *Cookie* and *Pssst* with their usual aplomb. RetroSpec is also currently working on a remake of *Sabre Wulf*.

"IT WAS CLEAR THAT DESPITE THEIR PHILOSOPHICAL COMMON GROUND, NINTENDO'S FUTURE IN THE HARDWARE MARKET WAS SHAKY AND RARE COULDN'T AFFORD TO KEEP ALL ITS EGGS IN THEIR BASKET"

for Nintendo to realise that the UK company was a valuable asset, and a strong working relationship developed between the two. Having clocked up a staggering 41 NES games in four years – plus Game Boy conversions – Rare was well-placed for preferential treatment when the next generation consoles rolled off the production line.

And if the rivalry between Nintendo and Sega was fierce over the Master System and NES, it got positively bloody with the Genesis/Mega Drive and SNES on the shelves. Despite having a powerful console, Nintendo couldn't compete with Sega's edgier image, and the SNES struggled to make its mark. Enter Rare. It had been working on a way of transferring the hi-res graphical output of their Silicon Graphics workstations to the new SNES system, and impressed Nintendo's Genyo Takeda when he paid them a visit. "We decided to show him a demonstration of a boxing game we had created using rendered graphics on a Silicon Graphics workstation", Chris Stamper told the Screenager website, "He was very impressed and asked what it would look like on a SNES, so into the evening and the next day we had two of our engineers work on taking the 24-bit true colour imagery and converting it to SNES." The result was enough to earn Rare unprecedented freedom to deliver a killer app for the Japanese giant's struggling console. With Mario off-limits, Chris and Tim looked for another Nintendo character everyone would recognise. One name stood out above all others – Donkey Kong. Back in the day, the grumpy monkey had been the star with Mario reduced to supporting status, but by 1993 he'd been left by the wayside. In fact, he'd dropped so far off the radar that his last appearance had been years earlier in an educational title for the NES. Rare had found its new hero.

The resulting game, *Donkey Kong Country*, not only turned around the fortunes of the SNES, it put Rare in the development spotlight. UK gamers at last discovered what the minds behind Sabreman had been up to all these long years. Such was *Donkey Kong Country's* prowess – from the astonishing graphics to the impeccable game design – it not only held Sega at bay, but many also credited it with sinking the likes

of 3DO and the Atari Jaguar. Why splash out on an unproven new console, the reasoning went, when Nintendo's 16-bit machine can deliver gameplay and graphics like this? Needless to say, Rare was now one of Nintendo's key developers, and it worked on the Donkey Kong brand, and Game Boy conversions while the technology geared up for the next technological shift.

1996 saw the launch of the Nintendo 64, with Sega and console newcomer Sony already head-to-head with CD-based 32-bit machines. As usual, Nintendo did things its own way and opted for a cartridge-based 64-bit system. While many saw Sony gobbling up market share with its enormous investment in hundreds of titles, Chris and Tim Stamper were happy to stay loyal to Nintendo, finding kinship in their preference for quality over quantity.

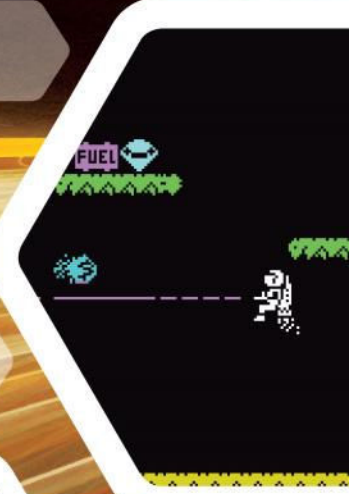
"I think Sony has a wonderful brand name and they have a very good machine", Chris told *Edge* magazine in 1997, "but at the end of the day I think that if it's quality that you're looking for, I think that you have to pick the N64."

"It's kind of getting like the old budget market in the UK in the Eighties, when there was a rush of substandard software", Tim agreed, "I mean, we're in the industry and I couldn't tell you what all the PlayStation games are like. If you gave me a list of the 300 or so titles released by this Christmas, I just wouldn't know what they're like. And how anybody else, a mother, a father, or brother or somebody who's got a machine – is going to know which game to buy unless they're specifically told is beyond me."

The reason for the *Edge* interview was the launch of yet another Rare classic *GoldenEye*. Although the brothers were wary about taking on a major license for a high profile console, their reputation allowed them the sort of creative freedom that would allow them to deliver a superb game, and a great adaptation. Such was this freedom that Rare was able to deliver a Nintendo game that included violent death, something of a first for the squeaky clean company. *GoldenEye* was an international smash, earning awards and plaudits across the

► Sabre Wulf: Penetration testing Sabreman's adventure.

► Ultimate's first Filmation game: *Knight Lore*.



HANDHELD WULF

In 2004 Rare made one of its, well, rare forays into its closely guarded back catalogue by producing a *Sabre Wulf* game for Nintendo's Game Boy Advance. Naturally, many retro fans drooled in anticipation at the prospect of a portable version of the beloved classic, but Rare had other plans.

Rather than an updated jungle maze romp, the resulting title was more of a traditional platformer – with a small smattering of adventure elements – as Sabreman travelled from village to village solving puzzles and going on quests. The meat of the gameplay involved finding and using a variety of friendly creatures (such as Blubba the bear) to get past obstacles. At the end of each level was the item you were after, as well as the angry 'wulf' of the title. He then chased you back through the level, leading to some breathless last-minute escapes.

It was actually a charming and innovative game, and received favourable reviews, but sales were elusive. For fans of the franchise, the fact that it clearly wasn't the *Sabre Wulf* of old was a turn off. For everyone else, the *Sabre Wulf* brand just wasn't popular enough to stand alongside the likes of *Pokémon* and other gaming juggernauts. Rare continues to plug away at the handheld market though, with *Banjo Pilot* being another recent update of a past hit for the portable player.



► Loading screens often looked amazing.

board. Rare went on to deliver another N64 hit in the shape of *Diddy Kong Racing*, a standard kart racer that marked the first time the Rare name was used to publish a title. More N64 games followed, but as the format battled in vain to catch up to the PlayStation, inventive and entertaining titles like *Jet Force Gemini*, *Conker's Bad Fur Day* and *Banjo-Kazooie* found limited audiences. The *GoldenEye* team's second offering, *Perfect Dark*, wowed those who played it in 2000, but without the money-making Bond license it just wasn't enough to pull the N64 out of its nosedive. It was clear that despite their philosophical common ground, Nintendo's future in the hardware market was shaky, and Rare couldn't afford to keep all its eggs in one basket. Rumours of a buyout flew, as publishers sized up the company's potential. Somebody would buy it, that much was obvious. But who?

In 2002 the mystery was solved. Rare was absorbed into Microsoft Game Studios to produce titles for the Xbox. It was a shaky start for Rare though, with many expecting them to simply churn out the say quality they had for Nintendo. Aside from *Grabbed By The Ghoulies*, Rare only produced a remake of its excellent N64 hit *Conker's Bad Fur Day* for the Xbox, due to other titles getting pushed back for Microsoft's Xbox 360. *Perfect Dark Zero* and *Kameo: Elements Of Power* launched on Xbox 360 and showed that Rare had lost none of its technical skills, while *Banjo-Kazooie: Nuts & Bolts* and two *Viva Piñata* games, proved that Rare was still a force to be reckoned with when it came to creativity and innovation in games. Recently however, there's been a significant change in the company, particularly since the Stampers left the company in 2007.

Rare is now heavily involved in developing tech and new software for Microsoft's popular Kinect peripheral, with *Kinect Sports: Season 2* being its most recent motion-based release. It's unclear what the future holds for the company, but, unlike so many other once-great Britsoft legends which got lost in the swamp of corporate ownership, Rare still operates much as Ultimate once did. Press is limited, secrecy is paramount... and gameplay is king.

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Cookie (Spectrum) - Ultimate
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Underworld (Spectrum, C64) - Ultimate

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Narc (NES) - Acclaim
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Solar Jetman (NES) - Tradewest

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1997

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2000

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2001

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2010

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2011

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2013

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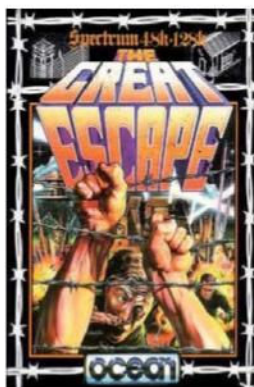
THE CLASSIC GAME



IN THE KNOW



- » PUBLISHER: OCEAN
- » DEVELOPER: DENTON DESIGNS
- » RELEASED: 1986
- » GENRE: ISOMETRIC ADVENTURE
- » EXPECT TO PAY: A FEW QUID



THE GREAT ESCAPE

On its release the Spectrum magazines showered *The Great Escape* with medals – a Crash Smash, a Sinclair User Classic and a Your Sinclair Megagame. High honours indeed, but just how groundbreaking was the game? Martyn Carroll goes under the fence to find out

When Ocean announced in 1986 that it was releasing a game based on the classic WWII film *The Great Escape* it hardly called for a victory salute (except possibly of the one-fingered variety). After all, Ocean had already dragged to market some appalling licensed products – *Street Hawk* and *Knight Rider* spring to mind – so there was every chance the publisher would make a mess of the much-loved movie.

Thankfully it wasn't to be, as the game was not a product of Ocean's in-house production line. Instead it was created by Denton Designs, the highly-respected team behind *Shadowfire*, *Frankie Goes To Hollywood* and the Spectrum version of *Spy Hunter*. And it was merely "inspired" by the movie rather than based directly on it, so there was no Charlie Bronson digging tunnels or Steve McQueen jumping over fences on a motorbike. Denton took the basic plot of a gutsy prisoner caged in a German POW

camp and built around it one the 8-bit era's most memorable titles.

Rather than a series of levels, *The Great Escape* features a single stage (the camp) which runs on a strict daily routine. To view the monotony of camp life you don't have to do anything; relinquish the controls and your character will go about his daily business. He'll get out of bed when prompted, then attend morning roll call in front of the German officers, before reporting to the canteen for breakfast. In the afternoon the prisoners



» This is your humble abode, complete with bed, table, and secret tunnel entrance. Very handy that...

are allowed time in the exercise yard, before attending evening roll call and returning to their huts at the day's end.

In the privacy of your hut you can start to explore your surroundings. There's a stove in the corner, which, when pushed aside reveals a secret tunnel. It's too dark to explore though – you need a torch or something similar. There's nothing else here, so you step outside, taking care not to get caught by the search light that sweeps the camp at night, and sneak into the neighbouring hut. There are no secret tunnels here, but you do find a bottle of poison. Maybe you could use that to deal with the dogs guarding the perimeter fence? For now though you need to get some shut-eye to keep your morale up.

When the next day dawns you begin to suss out your surroundings. After roll call, instead of going straight to the canteen, you try a couple of nearby doors. One is locked (need to find a key...) but the other is open, leading to a small room containing the Red Cross parcel. One of these arrives each morning and it's used by the allies to sneak items into the camp. On day one it contains a rather pointless bag of coins, but on day two a pair of wire cutters are waiting for you. That's more like it. Other items are hidden around the camp, including: a torch, so you can see where you're going in the tunnels; a spade, just the job for unblocking a caved-in tunnel; a useful lock-pick; and best of all, a German uniform which lets you explore restricted areas without arousing suspicion.

With what seems like 101 useful items for escaping a prison camp at your disposal, you'd think you'd be on your way back to dear old Blighty by the end of day two. But naturally it's not that simple. There are the German guards to contend with for a start. They patrol set routes and operate on a basic line-of-sight principle, so it's possible to sneak past them when they turn away. It's

THEY SAID: "THE GREAT ESCAPE IS DEFINITELY ONE OF THE BEST GAMES EVER SEEN ON THE SPECTRUM"

CRASH ISSUE 35



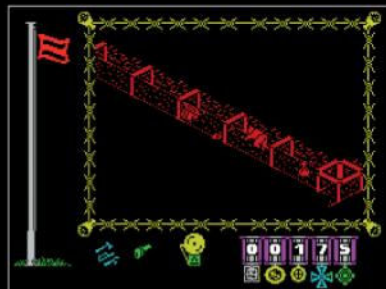
certainly not an exact science however, and there's a degree of randomness about being caught, which only serves to increase the tension. There's arguably nothing more heart-stopping in any 8-bit game than trying to pick a lock or cut a hole in a fence (which takes around 10 seconds) while the alarm bell is blaring and the guards are after your blood.

If you do get caught, the items you're carrying will be confiscated and you'll spend a morale-sapping night in solitary. And if your morale hits rock bottom, control is relinquished and your character will shuffle around the camp like a zombie, following the daily routine. Busting out really is the only option and there are several avenues of escape, all of which require careful planning and the correct equipment. A bit of good fortune comes in handy too.

The Great Escape's non-linear gameplay was a breath of fresh air back in 1986, particularly in this genre, and the game's isometric graphical style was just as innovative. For the camp's interiors the game adopts a familiar static approach, much like *Ultimate's* 3D adventures, but outside the player is treated to a scrolling isometric view. Being able to explore the camp without having to flick between multiple screens really builds a sense of 'being there' in a perfectly realised location. The speed at which the

viewpoint scrolls is also impressive, at least on the original Spectrum version (the Commodore 64 and Amstrad CPC ports are sluggish in comparison). Presentation is also spot on, with your morale depicted by a flag, which rises and falls, and your score displayed as a row of war medals.

Like the film on which the game is not based (it's "inspired", remember), *The Great Escape* is an 8-bit classic that has stood the test of time. Even if you've managed to escape several times before, getting the right gear together and breaking free is still a thrilling experience. Okay, so if you're playing via emulation then you'll want to crank up the speed a little, but the sense of atmosphere and the spirit of adventure remain tangible to this day.



» The tunnel is not just a sneaky way of travelling around camp, you can also hide goodies in it.



» It's a good job there was no CCTV, otherwise you'd end up in the German version of *When Good Prisoners Go Bad*.



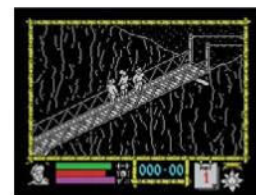
» When you're caught in the spotlight the guards will be attracted like moths around a light bulb. Make sure you're not spotted!

DEVELOPER HIGHLIGHTS

SHADOWFIRE
SPECTRUM/AMSTRAD/C64 (1985)

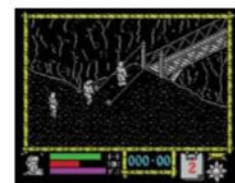
**FRANKIE GOES
TO HOLLYWOOD**
SPECTRUM/AMSTRAD/C64 (1985)

WHERE TIME STOOD STILL
(PICTURED)
SPECTRUM/PC-DOS/ATARI ST
(1988)



TURN BACK TIME

Following the success of *The Great Escape*, Denton began work on a follow-up that would utilise the same isometric graphics system but feature a completely new scenario. The result was *Where Time Stood Still*, a sprawling adventure for the Spectrum 128k that took place in a primitive world, pitting a party of plane crash survivors against cannibals, carnivorous animals and various other things that wanted to eat you. This pseudo-sequel is much more linear than *The Great Escape* – you simply have to guide the party from A to B – but there is an emphasis on teamwork and resource management, as you have to switch control between the four characters to solve a series of tricky puzzles. *WTSS* is an epic adventure and a perfect companion piece to *The Great Escape*. It's kind of fitting that the staff at Denton were involved in Imagine's infamous 'mega-games', because with *WTSS* they ultimately created a game that truly deserves that title.



THE GREAT ESCAPE'S NON-LINEAR GAMEPLAY WAS A BREATH OF FRESH AIR BACK IN 1986, PARTICULARLY IN THIS GENRE AND THE GAME'S ISOMETRIC GRAPHICAL STYLE WAS JUST AS INNOVATIVE

HOLY MOLY: THE STORY OF

MONTY HOLE

Craig Grannell charts the progress of everyone's favourite videogame mole, from coal thief to superhero, with the help of co-creators Pete Harrap and Tony Crowther, ex-Commodore coder Jason Perkins, and SID chip virtuoso Rob Hubbard



HOLY MOLY: THE STORY OF MONTY MOLE

Ian Stewart, managing director at Gremlin Graphics, was once into double letters for initials, remembers Tony Crowther: "There had been *Potty Pigeon* in 1984, and then he came up with the name **Monty Mole** and asked me to write a game using the character." At the time, Tony was fixated on creating scrolling games on the C64, such as *Son Of Blagger*, and he thought he could do something better with the knowledge he'd since gained.

Through experimentation, Tony got a larger and faster scrolling platform game working: "Getting the tech right was a big challenge, but I had a crude sprite running around the map, and integrated a randomly generated maze, which at the time I was fascinated with." Once the *Monty Mole* name was decided, the game was moulded to suit. Tony recalls that with the game being designed on a big map, anything that didn't fit was dispensed with, and he aimed to include as much variety as he could. "I did have issues with the maximum number of sprites, with only eight allowed on the same line," he adds. "So the design worked around the number of available sprites, and also motion: I wanted to make as many moving parts as possible, with conveyer belts and crushers."

In a curious case of parallel development, Tony's game wasn't the only one in the works. Pete Harrap was given the same loose brief, but his target platform was the ZX Spectrum. With the Speccy lacking the hardware tricks necessary for full-screen scrolling, Pete unsurprisingly came up with something very different, inspired by *Manic Miner*. "That was the type of game I enjoyed back then – a mix of humour, simplicity and 'how do I get up there before I run out of time?' puzzles," he says.

DOWN THE PIT

In Pete's hands, Monty's Spectrum debut also took on a political bent. Pete placed Monty in a coal mine, making a daring raid to grab enough fuel to see himself through a long, cold winter. This was played out against a backdrop of

IN THE KNOW

PUBLISHER: Gremlin Graphics
DEVELOPER: Gremlin Graphics/
Core Design (*Impossamole*)
PLATFORM: Various
RELEASED: 1984–1990
GENRE: Platform
EXPECT TO PAY: £1+ per game

DEVELOPER HIGHLIGHTS

THING ON A SPRING
1985 | C64, Amstrad

JACK THE NIPPER (pictured)
1986 | Spectrum, C64, Amstrad, MSX



real-world industrial action in the UK, with coal miners striking, urged on by National Union of Mineworkers leader Arthur Scargill, who makes a brief appearance in the game, in caricature form. These elements rewarded Pete's game with a television appearance and led to promises by Gremlin to make a donation to a miners' charity.

"The miners' strike angle was because my dad was a coal-face worker, annoyed that he never got a vote on the strike," explains Pete. "Miners used to be very democratic, and it wasn't fair for my dad to be made to strike to satisfy the ambitions of Scargill, no matter how right he was about mine closures. He treated the miners as though they were stupid and couldn't decide for themselves."

This being the Eighties, Pete didn't create a typical mine for Monty to explore. Although it included a trip on a mine cart, dangerous falling debris and, of course, coal, it was also populated by all manner of surreal and dangerous foes, including demons and leaping sharks. "The visuals were fun, based on items that could be used in a mine, scare you, or make you laugh," he says. "My favourite was the dripping candle, although you wouldn't get a naked flame in a real mine!" It was also decided that the Spectrum version should be a flick-screen adventure rather than aping *Manic Miner*'s single-screen approach, to "allow the player more choice on where to go next". Having started with what later became the game's second screen, a mine entrance, Pete worked up maps and figured out how they linked together, which determined the types of platforms that were required. The game was very rapidly put together, taking about three months in all.

» *Monty On the Run* on the Spectrum lacks Rob Hubbard's stunning C64 tune, but is still great fun.



VICIOUS STREAK

Although Tony and Pete mostly worked in isolation – Tony recalls that his game was pretty much done by the time the Spectrum version was started, but Pete says the first he knew about the C64 version was when his game was almost finished – there was still time before shipping to swap a few ideas.

According to Pete, a couple of changes were demanded by Ian, who considered the Spectrum version to be "lacking a little oomph". Pete duly pilfered Tony's coal-crushers and added them to his game, then made them more vicious: "I was the one who made their movement in the Spectrum version random... guilty!"

Since Pete had decided on the game's hero stealing coal, that component was added to Tony's game. Additionally, Ian felt both games needed some kind of opening screen, and so Pete devised a scene where Monty sneaks up to a miner's house and grabs

» Helpful tip: don't fall down a mountain and get eaten by a yeti!



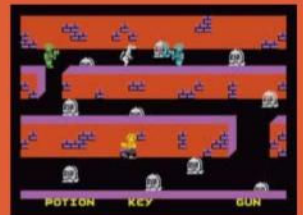
his coal bucket, before making a break for the mine, pursued by an angry miner and dodging massive acorns dropped by a crazed squirrel. A variant was added to the C64 version, but Pete took the added step of making all the coal in the Spectrum game invisible if you didn't first collect the bucket. "I guess I'm a bit cruel," he laughs. "But I felt it was obvious. How can you collect coal without a bucket?"

With *Wanted: Monty Mole* complete, Pete was satisfied, and while he'd have liked more screens and sprites – he explains that he never found a suitable spot for a digital version of his head – no grand plans were cut. "In hindsight, I'd give you a bit of warning on the crushers and clues about what might kill you – I was too cruel sometimes," he muses. "But I remember standing in WHSmith, looking at my hard work on a shelf, when a nine-year-old walked up and said, 'I want that one,' which was a proud moment." And on the varying versions that ended up being produced? "Tony's game was excellent, making full use of the C64's hardware, and, if I'm honest, it worked better than mine

MONTY IS INNOCENT

THE SECOND GAME in the *Monty Mole* series might have the furry felon adorning the cover art and title screen, but he was barely in the game itself. Instead, the hero of the hour was Sam Stoat, determined to free his chum from the bowels of Scudmore Prison. Designed by Chris Kerry, the title dispenses with *Wanted: Monty Mole*'s platforms. Instead, action is presented as a complex isometric 3D maze. In theory, the aim is to grab a key from the governor's office, to open one of the cell doors in another part of the complex; do this several times and you'll finally locate Monty. In reality, much of the game involves avoiding myriad beasts that kill Sam with the slightest touch, and getting hugely frustrated with the insane difficulty of springing Monty.

Reviews were mixed, and Pete notes that he had no involvement in its creation: "I only saw it after completion and didn't like it at all. To me, Monty is always a platformer." Gamers agreed; poor sales were largely what led to Pete being asked to work on a proper sequel to his original hit, the series high point that was *Monty On The Run*.



» *Monty Is Innocent*? Perhaps. But the game's guilty of being a bit rubbish.

would have if directly ported. But mine was best. I'm biased!"

GOING IT ALONE

With a second game starring Monty having failed to trouble the charts (see 'Monty Is Innocent'), Pete was asked to design a sequel more in keeping with his original. "Since he'd escaped prison, Monty was on the run," he says of the basic concept and name of the follow-up, *Monty On The Run*. But while Pete was keen to retain the style of *Wanted*, he was adamant that it shouldn't just be the same game with more screens. "I'd been disappointed with *Jet Set Willy* on that score," he says. "It lost a lot of detail when compared to *Manic Miner*, presumably to make the extra screens fit. I thought *Manic Miner* was the better game – more creative and fun."

With a mantra that adding screens at the cost of creativity was the wrong direction, Pete let his imagination drive *Monty On The Run*'s development. The map, while still broadly linear, offered more scope for exploration. New features were added, including teleporters, a somersaulting Monty, and lifts – one of which abruptly crashes, crushing the hero. Additionally, although most of the game remained a traditional platformer, two sections were very different: one found Monty piloting a

jetpack; the other had him driving a C5. "The somersault was because I liked *Impossible Mission* on the C64 and wondered how it would look if I borrowed that for *Monty*," admits Pete. But other new map-oriented features were to force gamers to explore: "The 'porters are there because I'm a Trekkie, but I also wanted to create short cuts around the map, and areas you could only get into one way and then have to escape from. As for the broken lift, the first one was to discourage you from taking a perfectly good short cut later on. Did I mention I was cruel?"

Pete remembers when Ian bought a C5, explaining its presence: "I thought: 'Nice, a washing machine with wheels – I can use that!' I wanted to make it do wheelies, but couldn't fit the animations in, so I was stuck with it jumping." The jetpack, meanwhile, was a tribute to Ultimate. "Plus I thought strapping a jetpack to a mole would give you a fun new control method to get used to right in the middle of the game."

Monty On The Run sometimes frustrated – there were abrupt deaths and a pre-game 'Freedom Kit' that made areas impassable if you'd selected the

“The broken lift discouraged you from taking a short cut later on. Did I mention I was cruel?”

wrong item. "I loved throwing spanners back then," chuckles Pete, noting that kit items were specifically chosen to appear useful. But the game was nonetheless far more playable and balanced than *Wanted*. "It's my favourite, because I feel I got almost everything right," affirms Pete. "It played exactly how I wanted, with just the right amount of humour."

CONVERSION CAPERS

This time, instead of a wildly different C64 version, it largely matched the Spectrum's, which Pete recalls was down to fan demands and sales figures: "The C64 game didn't do as well as the Spectrum release, so Ian decided to make the games more similar."

Also, Tony had left Gremlin, leaving Pete entirely in control of the game's direction, which was defined by the Spectrum's capabilities. Even so, the games didn't turn out identical, due to the C64's masterful Rob Hubbard soundtrack (see 'Number-one score') and some graphical additions, which Pete says were



MOLEY CHRISTMAS

THE LAST CLASSIC *Monty Mole* game appeared as a Christmas gift for readers of *Your Sinclair*. Issue 25's covermount was the exclusive *Moley Christmas*, boasting six single-screen locations into which the essence of *Monty On The Run* had been distilled. The game had an ever-decreasing energy meter, so demanded fast reactions and quick thinking to solve puzzles and progress through the Gremlin Graphics HQ, mastering and duplication plants, the M1, and the offices of *Your Sinclair*. The final location finds Monty delivering the mag to a newsagent while braving traffic on a busy road – a cute riff on *Frogger*.

"We did the game as a favour to Ian and kept it quite simple, because it was to be given away on a mag," recalls Pete. "But we certainly still wanted to

give value to the *Monty Mole* concept. The limited amount of time we had to develop the game was what led to more having to be done per screen. But that also meant we got more time to spend tweaking each location, even though the total development time was much less than for previous *Monty Mole* titles."



» Monty attempts to thumb a lift on the M1 in *Moley Christmas*



» Why Monty can't settle on this sunny island at the start of *Auf Wiedersehen Monty*, we'll never know.



» Shark in the mine! Health and safety's going to have a field day.

"absolutely what I'd have chosen myself" and made the conversion "the better of the two *On The Runs*."

The conversion was done by Micro Projects Limited, set up by Jason Perkins (now director of Curve Studios), Tony Clarke and Mark Rogers. Jason remembers how Pete gave the team level designs and artwork, including printouts of Spectrum sprites, which were meticulously re-created on the C64, pixel by pixel. Data dumps were provided for background tile sets, but these needed amending, as Jason explains: "One advantage the C64 had over the Speccy was its 40-character display, compared to 32 on the Sinclair machine. This meant a straight port would have left blank areas at the side of the screen." The solution was mostly to centre the 32-character screens of the Spectrum version and fill the remaining space with additional artwork. "We also made a number of original objects – plant pots, wine bottles, traffic cones – that we could place anywhere on the screen to help disguise areas where the duplication of rows looked a bit obvious," he adds.

This approach might seem a bit 'bare minimum', but Jason remembers that Gremlin had given Micro Projects only four weeks to complete the conversion. Also, the decision to go with high-res Spectrum-style graphics came after experimentation.

"We tried using the C64's twin-pixel multicoloured mode, but it was difficult to get anything looking good, and the deadline meant redoing all of the art wasn't really an option," says Jason. Although the team had the C64's extra memory, it lacked time, and so ambitious plans to code a full-scrolling C5 section had to be abandoned. "But, to be honest, the Spectrum game was in such good shape when we got involved that it was a fairly straightforward development to get it up and running on the Commodore," considers Jason. "And we were very happy with the finished game, which was reflected in the reviews. We knew it was good."

MINI MOLE

Jason also worked on another *On The Run*, this time for the C16. "That could have been a great home computer, but Commodore released it without hardware sprites. And with the hardware flopping in the US, the company dumped it in Europe, meaning there were loads of units around," grumbles

Jason, who tells us that Commodore sent him, out of the blue, a free machine and disk drive, hoping he'd develop games for it. Ten C16 titles were sold to Gremlin by Micro Projects, but the company closed by the time the *On The Run* order arrived, and so Jason teamed with Terry Lloyd, who he remembers was "a big fan of the *Monty Mole* series and a great graphics artist and level designer".

With no hardware sprites and only 16K of RAM available, the game had to be stripped back, without losing its essence. "We established that we could only have four moving sprites on the screen at once, including Monty, so went to work filleting the existing levels and reducing the overall content," explains Jason. "We felt as long as we kept the main control system for Monty, maintained the frantic dodging of moving objects and kept the crushers, the conversion would be possible."

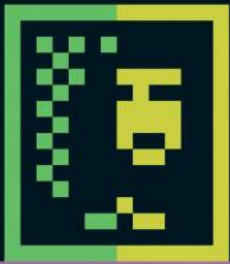
The team used the same trick as with the C64 version, stretching the edges of the map to fill the 40-character screen, although major redesigns perhaps made that less necessary; elsewhere, other than Monty, it was determined that all moving objects would only travel horizontally or vertically. "It was a simple process to pre-pixel-scroll the moving characters at the start of each screen," says Jason.

Although simpler than the other 8-bit versions, the C16 conversion was lauded by the press, with *Commodore User* awarding it a



NUMBER-ONE SCORE

THE C64 VERSION of *Monty On The Run* was an impressive, great-looking conversion, but it was Rob Hubbard's soundtrack – often considered the C64's best – that really set it apart from other games of the day. "It was based on a tape Gremlin sent me [of *Devil's Galop*] and they asked me to do something similar, so I expanded it as much as I could and added some additional parts," recalls Rob. "The solo in the middle was the result of a pitch-bend routine I'd added to the player, and everything was 6502 assembler and hard coded in 'byte' statements. I basically coded a guitar-type solo I worked out on a piano until it approximated what I heard in my head, as it were! There was also a third section at the end, which was a frenetic build-up to the climax, before the music looped. Add in the sound effects and the whole thing was less than 5KB!"



Screen Star and declaring it the “definitive C16 platform game”. Jason remains happy with the conversion, which was completed on time, in just a few weeks. More importantly, it captured the key gameplay elements of the *Monty Mole* series: “The C16 community was happy as, for once, a publisher was taking the machine seriously and

“Where else can you do somersaults as a fat, one-eyed mole with a coal fixation?”

developing a well-respected franchise for it, rather than releasing a pile of old crap to make a quick buck.”

GOODBYE, MONTY

Back on the Spectrum, the final commercially released *Monty Mole* title Pete worked on was *Auf Wiedersehen Monty*, presumably intended, given its title, to be the character’s swan song. The game took the basic blueprint from *Monty On The Run*, but tasked Monty with exploring Europe, his aim being to earn enough cash to buy an island. This was achieved by picking up money carelessly left lying about, along with pilfering objects and selling them on. The opaque puzzles combined with irritating new features – an annoying in-game arcade sequence where you attack a biplane with your craft’s propellers; control-reversing wine pick-ups; icy areas where Monty randomly slides about – resulted in a game that lost the purity of its predecessor. On the Spectrum,

at least, it rated highly, but *Zzap!64* slammed the C64 conversion, arguing that “even the most ardent of *Monty* fans is likely to be disappointed”.

Pete isn’t quick to defend his creation. “We overworked it,” he admits. “We tried to do a lot more with *Auf*, and quite a lot of it worked, but there were not enough genuinely new ideas and they felt a bit forced.” He recalls enjoying creating the map – “We got a lot more screens in, with a nice representation of real European locations” – and liked the sticky platforms that Monty could walk on, upside down. But the drunk mode? “Yeah, that was contrived... The entire game was a bit like how *Jet Set Willy* felt to me – it lost a bit of fun and originality in trying to add too much.”

Still, Pete at least gave Monty some breakdancing lessons. “That was due to Ben [Daglish] doing such a popping tune.

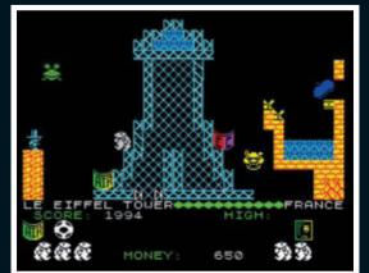
outing so at odds with other *Monty Mole* games that it barely qualifies as an entry in the series (‘*Impossamole*’), our bug-chomping chum has been silent for two decades, but Pete plans to resurrect the character. “I have two *Monty* games in my head. One is a full-on original, with all-new content. The other is a tribute to my favourite – *On The Run* – with tweaks to omit things that now irritate me,” he reveals. Some changes are to be minor – ditching the cloud lift in the second screen, for example – but others should prove very interesting: “There will be achievements and different ways of playing the same map, including training maps and a multiplayer mode that might include *Thing On A Spring*-style slippers.”

The game was slated for a 2012 release on iOS (see harrap.net for progress), and Pete’s experimenting with control methods to ensure that Apple’s buttonless device doesn’t lead to myriad dead moles: “Imagine touching Monty and sketching where he goes, tapping to make him jump. Another method involves gesture-based swipes and flicks. Both are intended to be intuitive.” And, as you might expect, this is a labour of love for the veteran games designer: “I’m doing it because I enjoy it. It won’t cost much, and hopefully it’ll bring a smile to players, old and new. My grandson keeps asking when it’ll be ready, and he’s only four!”

To close, we ask why Pete thinks Monty’s so fondly remembered, especially considering how frustrating some of the screens in his games are. “I hope it’s because they were fun to play,” he begins, “but, for me, it’s because where else can you do somersaults as a fat, one-eyed mole with a coal fixation? Now, where’s me jetpack?”



» *Monty On The Run* was one of the best games in the series, and remains an entertaining platformer.



» And we always thought the Eiffel Tower was taller than a dozen upright moles...

IMPOSSAMOLE

GREMLIN’S FINAL CRACK at a *Monty Mole* game arrived in 1990. Created by Core Design, *Impossamole* had the odd nod to earlier games in the series – crushers, a mine cart in the first level – but the gameplay was far closer in feel to Core’s own *Rick Dangerous*. Also, Monty had the ability to kick his foes’ faces off and was, at times, armed to the teeth. Monty with a bazooka is a far cry from an insectivore scrabbling around for a bit of coal to keep warm.

The result was a title that divided opinion, between those who enjoyed the lush graphics and challenge and those who didn’t care for its sluggishness, excessive difficulty and lack of innovation. Pete wasn’t impressed by what he saw: “I never played it

and didn’t like the idea.” Still, he admits that “there might be a cape power-up in the iOS *Monty On The Run* multiplayer maps”.

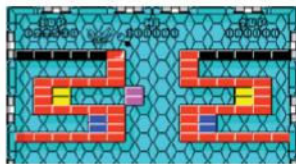


» Monty forlornly looks on in *Impossamole*, the mine cart reminding him of better times.

» RETRO REVIVAL

BATTY

THE BEST FREEBIE EVER?



- » PUBLISHER HIT-PAK
- » RELEASED: 1987
- » GENRE: PUZZLE
- » FEATURED HARDWARE: ZX SPECTRUM
- » EXPECT TO PAY: A FEW QUID



HISTORY

Imagine picking up the newest console magazine and finding the latest AAA hit attached to it.

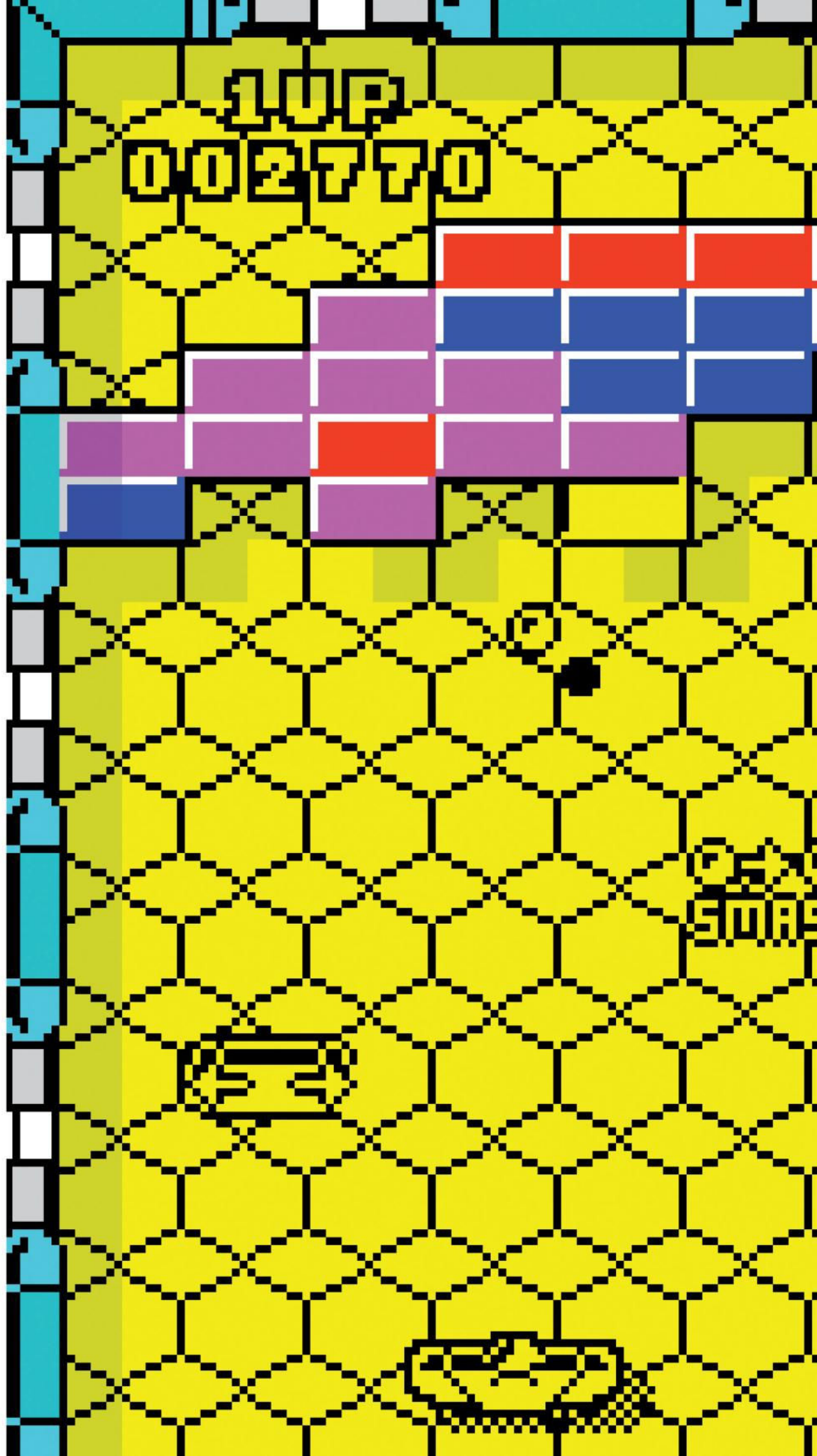
Believe it or not, that's exactly what happened in 1987 when I wandered down to my local newsagents with my best mate, Paul, and picked up the latest issue of *Your Sinclair*. The game in question was *Batty*, and to Paul and myself it appeared to be little more than a bog-standard clone of Imagine's recently released *Arkanoid* – how wrong we were...

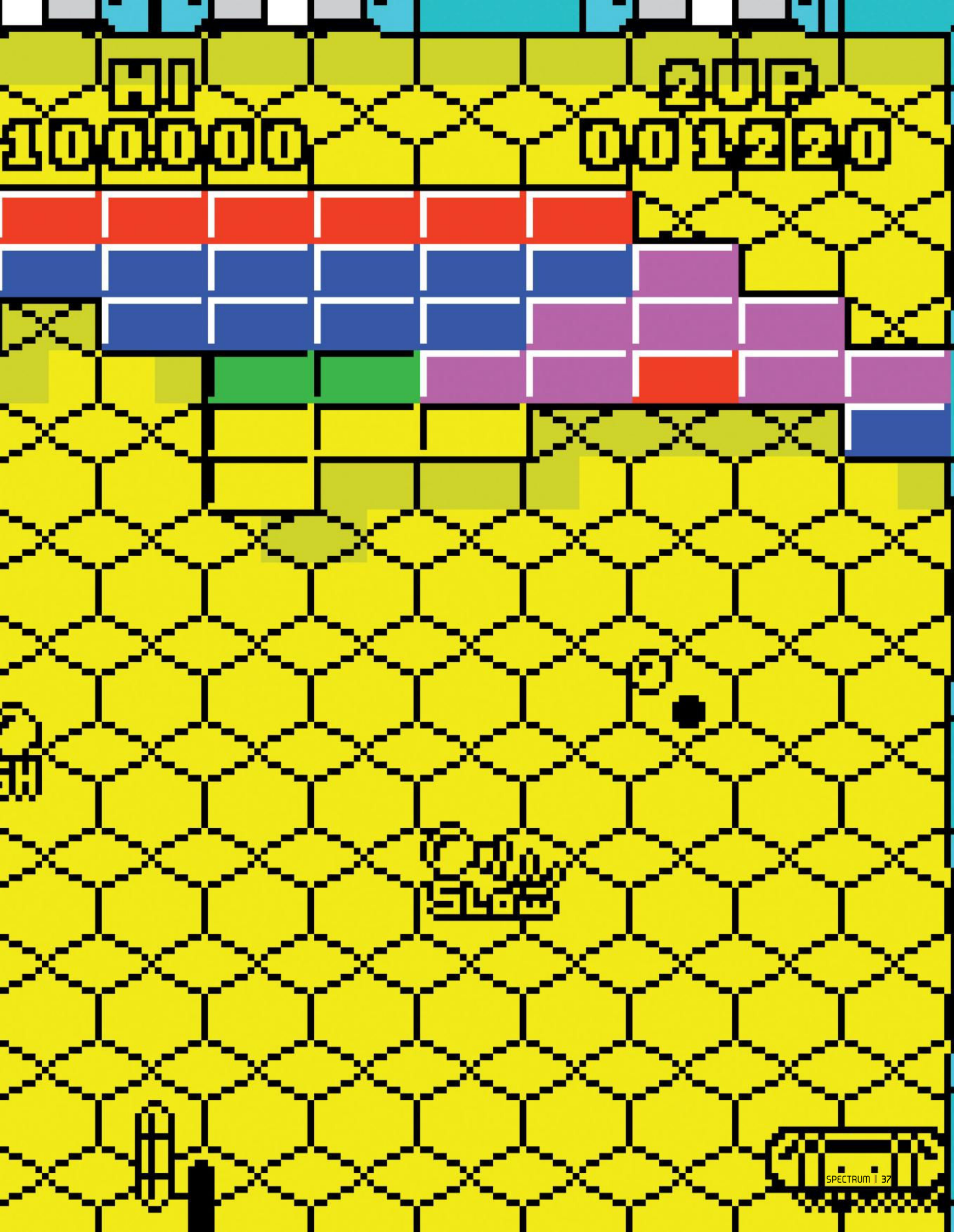
While *Batty* looked and played similarly to the classic coin-op hit, it boasted plenty of smart extras that elevated it above Imagine's full-priced effort. The actual visuals were big bold and chunky and very colourful. The game's many aliens actually retaliated by dropping bombs on you and there were plenty of cool power-ups that ranged from extending the size of your bat, to a handy set of jets that would conveniently boost you to the next, tougher level.

For all its solid level design, bold visuals and gripping gameplay, there was one element of *Batty* that lifted it above all other similar games and made it untouchable – the amazing simultaneous two-player mode.

Rather than take turns, each player simply guarded one half of the screen and shared a set number of lives between them. Whilst this cleverly stopped you from getting your bats mixed up (although it limited the amount of power-ups you could collect) it didn't help the poor sod who was unfortunate enough to let *Batty*'s ball slip past his defences, as he normally got a mouthful of abuse from his team-mate.

Batty didn't stay exclusive for very long as it eventually appeared on a compilation, and at a budget price. While it lasted though, lucky Spectrum owners were treated to something very special indeed. And to think *Elite* turned down the opportunity to publish it...





HI

2UP

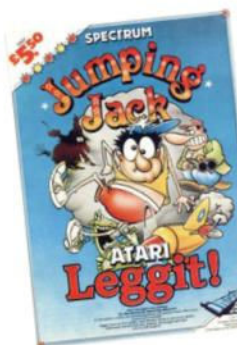
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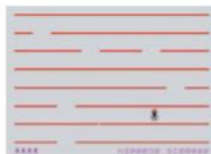
SLOW

JUMPING JACK

Jumping Jack is quick and bold
With skill his story will unfold
Martyn Carroll talks to Albert Ball
About the game that charmed them all



» *Jumping Jack* was renamed on other machines due to a naming rights issue.



JUMPING JACK 101

■ Daring Jack must make it to the top of each screen by carefully jumping through the moving gaps. On the opening screen of the game it's just Jack and the platforms, but on subsequent levels more and more enemies join the fray, adding to the challenge. There are actually 21 levels in total, not 20 as mentioned on the game's inlay!

Albert Ball is not one of the famous Imagine Software alumni. Many of the individuals involved with the Liverpool-based company went on to bigger and better things following its collapse in July 1984.

People like Eugene Evans, John Gibson, Ally Noble and even marketer Bruce Everiss have carved out successful careers in the gaming industry. Albert, meanwhile, is best remembered for his debut game *Jumping Jack*, and has never been interviewed about his work. That's an oversight that clearly needs correcting, particularly as *Jumping Jack* is surely Imagine's best game – a simple, hugely playable and downright charming arcade title that's the very antithesis of the flashy Megagames that contributed to the company's demise.

Albert lived close to Liverpool in a village called Lowton, but he wasn't one of the in-house Imagineers. He had no

background in computing and worked full-time as an electrical engineer, having gained a degree in engineering from the University of Salford in 1968. So Albert was in his mid-thirties when news of the ZX Spectrum first began to circulate. "I saw the blurb from Sinclair and thought it sounded fantastic," he says. "I ordered one straight away, but as you probably know, Sinclair used the proceeds to continue developing the damn thing! It was about six months after I paid for it that I finally got it. It was so frustrating."

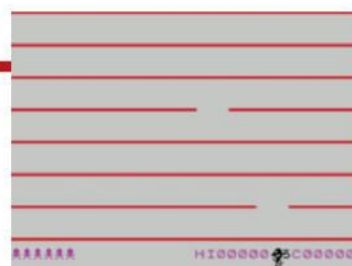
That frustration is long gone now, as Albert reflects on the time with plenty of humour – and more than a little surprise that he's talking about *Jumping Jack* after all these years. But when his Spectrum finally arrived in late 1982 it was no laughing matter – particularly for his family. "I became very unsociable once I got the Spectrum," he reveals. "I taught myself to program and wrote odd bits in Sinclair Basic. I then got the data sheet for the Z80 and got familiar with



all of the machine code instructions, and realised you could do a lot more at that level. It took me over completely and I was enthralled by it. I had a full-time job and I was programming in the evenings. I got into a lot of trouble with the family for devoting all of my attention to it."

Albert's painstaking method of programming ensured that plenty of midnight oil was burnt. "I wrote *Jumping Jack* by actually poking the machine code directly into memory locations. I'd enter each subroutine and then leave a gap in case they expanded, which they usually did. Of course, I ran out of space so had to re-poke the whole damn thing in. After I finished the game someone said to me: 'Which assembler did you use?' I didn't know what an assembler was. When I found out it blew me away. Good God, I thought, it's magic! It does the programming for you!"

All that poking around resulted in *Jumping Jack*, an arcade game with a deceptively simple objective – guide stickman Jack to the top of the screen

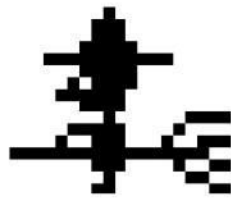


» In a neat touch Jack can run behind the on-screen scores and lives counter.

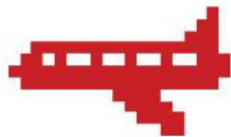


by jumping through the moving gaps in the platforms. However, if you mistimed your jump and banged your head, or were hit by one of the moving 'hazards', you'd be briefly knocked unconscious and, most likely, swallowed by the moving gaps. It was a bit like *Snakes And Ladders*, where you'd climb to the top only to hit a 'snake' and thud, thud, thud down to the bottom again. But this was no game of pure luck: if you messed up it was your own fault, hence why reaching the top of the screen was so compulsive.

"I can't remember exactly what gave me the idea for *Jumping Jack*," admits Albert when asked about the game's origins. "I never really played other people's games as my interest was in the programming. A platform game just seemed like a simple and obvious thing to do. I started to code it up in stages and thought that it looked like a reasonable game. I then got my son, Stuart, who was only ten at the time but very keen on art, to draw up some graphics for it. He got some squared graph paper and started designing the graphics – Jack



» The game becomes much more frantic when multiple hazards arrive on the screen.



running, jumping and falling over, and the hazards like the little bus and train and so on. He did an excellent job. I wouldn't have had the patience to do all that."

It you thought that the graphics were a little simplistic then now you know why. Stuart's doodles definitely had a certain charm about them, though, and the young Ball also fulfilled the role of target group playtester. "Initially I designed it to have ten levels as I could only get up to level five or six," says Albert, "Stuart was very nimble-fingered and he cracked it in no time. I was



IN THE KNOW

- » **PUBLISHER:** IMAGINE SOFTWARE
- » **DEVELOPER:** Albert Ball
- » **RELEASED:** 1983
- » **PLATFORM:** Spectrum, Dragon, Atari 8-bit
- » **PLATFORM:** Platform

“I became very unsociable once I got the Spectrum... I was absolutely enthralled by it”

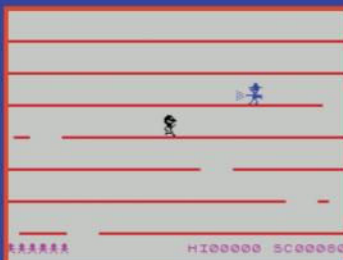
Albert Ball



» Proud dad Albert Ball with son Stuart who designed the graphics for *Jumping Jack*.

JACK STACKED UP

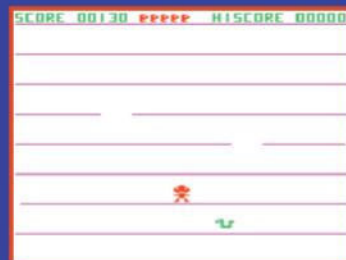
How the three versions of the game compare



SPECTRUM

AUTHOR: Albert Ball

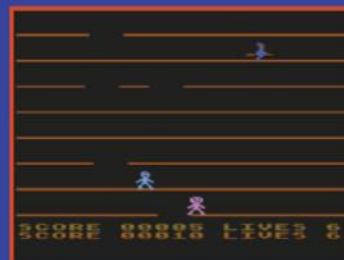
■ The classic original. The graphics are basic and the sound is minimal but the playability cannot be faulted. You run and jump and crash and fall – it's incredibly frustrating but at the same time it's difficult to stop playing. Easily one of the top five 16K Spectrum games.



DRAGON 32

AUTHOR: Roy Lowry

■ The Dragon version is very close to the Spectrum game, with all of the levels and hazards. It plays just as well, too, and is perhaps a touch easier due to the slightly slower speed of the gaps. Sadly the rhyme is missing but that doesn't affect the gameplay, of course.



ATARI 8-BIT

AUTHOR: Roy Gibson

■ The Atari version is a bit of a revelation, in that it includes a simultaneous two-player mode where you race to be the first one to the top of the screen. If you bump into each other you both fall! Movement is silky smooth and overall this is an excellent update of the original.

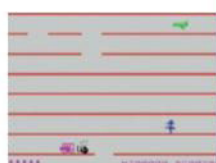




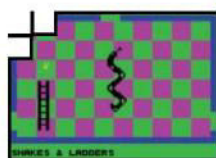
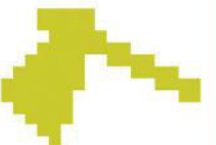
» "It's a madhouse!" Albert sums up the later levels perfectly.



» Every time you jump up a level, another gap opens up elsewhere.



» Run down by a speeding train. This is not going to end well.



DEVELOPER HIGHLIGHTS

JUMPING JACK

SYSTEM: Spectrum,

Dragon, Atari 8-bit

YEAR: 1983

RAPSCALLION

(PICTURED)

SYSTEM: Spectrum

YEAR: 1984

MASTERSPY

SYSTEM: Spectrum, PC

YEAR: 1987

► worried that it might be too easy and it occurred to me that I could double the number of levels and hazards. Whether anybody completed it I don't know."

Any determined souls that did manage to finish the game were rewarded with the final line of a rhyme which was revealed, a couplet at a time, after each level. "I put the rhyme on afterwards as I thought the player deserved some kind of reward for getting to the top of each screen."

After two months of work *Jumping Jack* was complete. The game occupied precisely 8,818 bytes of memory, meaning that it would run on the entry level 16K Spectrum. The next step was for Albert to attract a publisher. "I sent it off to four or five software houses including Imagine, Bug-Byte and Virgin Games. I just put a tape in an envelope with a letter saying: 'If you're interested make me an offer.' The next thing I knew I was at work and I got a phone call from my wife to say that some people from Imagine had come over to the house. They actually turned up on the doorstep. It turned out that a computer fair was being held in London the next week and Imagine wanted to sign it up right away.

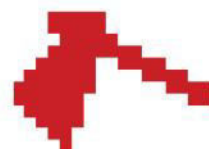
"I went up to Liverpool to see them. I really wanted a royalty deal but Imagine had no means of giving royalties at that time, so it offered to buy the game for a

"I bought the kids new bikes and told them they were presents from Jumping Jack"

Albert Ball

cash payment of £2,000. I hadn't got a clue what it was worth really. I got it up to £3,000, which was a decent lump of money to have at that time. I thought afterwards, when the game took off, that if I'd gone for royalties I would have done really well. Still, I bought a 48K Spectrum out of the proceeds – and I got myself an assembler as well! I also bought the kids new bikes and told them they were presents from *Jumping Jack*."

The game was released in July 1983. Steve Blower was commissioned to produce a comedic cover illustration and the game retailed for Imagine's usual price of £5.50. Glowing reviews soon followed, with *Home Computing Weekly* and *Popular Computing Weekly* awarding the game 5/5 and 10/10 respectively. *Crash* magazine called it, "quite simply one of the most addictive games around and excellent value for money." Sales were notable too, with the game climbing into the multi-format top ten chart in November 1983 alongside heavyweight hits like *Jet-Pac*, *Manic Miner* and Imagine's own *Zzooom*.



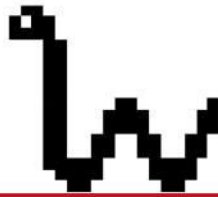
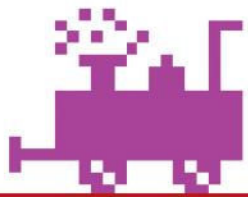
JUMPING JACK

NEXT LEVEL - 2 HAZARDS

THE BALLAD OF JUMPING JACK
A daring explorer named Jack...

» Lines of a rhyme are revealed between each stage, rewarding players for their progress.





Having agreed to purchase the game outright, Imagine ported it to the Dragon and Atari 8-bit without Albert's involvement (a Commodore 64 version was also mooted but never materialised). For these machines the game was renamed *Leggit* and the character of Jumping Jack became Leaping Lenny. It transpired that Imagine was forced to change the name because a *Frogger* clone called *Jumpin' Jack* had previously been released for the VIC-20.

Buoyed by the game's success, Albert began working on his second title, an arcade maze game called *Rapscallion*. This took the best part of a year to develop and was due to be published by Imagine, but the firm's woes were about to be laid bare. "A guy at work showed me a magazine article about Imagine and its financial difficulties. It was a bit a shock! So I decided to take the game to various other places and eventually did a deal with Bug-Byte."

A narrow escape, yet it wasn't all plain sailing with Bug-Byte. "I did struggle," says Albert. "I sold it for royalties and I was supposed to be paid every three months, and it got to more than six months before I was paid anything. I kept writing letters and ringing up, and eventually I had to take legal action. It was sad I had to do that. In total I got just over £5,000 for the game."



» Leaper, published by Argus Press for the C16 and Atari 8-bit, was a rather blatant copy of *Jumping Jack*.

The market was changing. Bug-Byte was liquidated soon after and Albert struggled to gain any interest in his third game, *Masterspy*. "It was an espionage adventure where you had to solve a series of intricate puzzles to sniff out a mole. I was working on it for years and things had moved on by the time it was finished and there were no takers. A guy from a software company did ring me up and said he thought the game was really fantastic and he'd like to make me an offer, but he'd have to put it before his panel of reviewers first. Sadly the reviewers' verdict was that the game was too complicated."

Undeterred Albert created a PC version of *Masterspy* (which ultimately ended up on a PC Plus coverdisk), but his days as a hobbyist game developer were at an end. He has continued to code however, and in recent years created a railway simulator for Windows that allows train enthusiasts to build and operate their own railways. Looking back he is rightfully proud of *Jumping Jack* and has fond memories of that period in his life, when he enlisted the help of his young son to create an enduring classic in the family home.

"The whole thing was quite extraordinary," he says. "It was like a cottage industry at that time, with people just like me actually developing a game on a stock 16K Spectrum on which it would be played. I had no idea *Jumping Jack* was going to be so popular. I still come across people today who played the game as children, or their children played it, and it's very nice to hear that sort of thing; to know that people enjoyed it and got hours of pleasure out of it. That's the real payoff, really. And, to me, that's worth way more than money."

MORE IMAGINE HITS

Five games that were a clear cut above

ARCADIA 1982

■ The game on which Imagine was founded brought arcade shooting thrills into the home. It was quickly superseded but at the time of release it was hugely impressive and very popular. The VIC-20 version (pictured here) is more playable than the later C64 release.



WACKY WAITERS 1982

■ Imagine released many titles for the VIC-20 and this title from Eugene Evans is the best. Negotiating lethal lifts to deliver drinks is far from simple, but it has that quality that drags you back for more. Eugene's *Catcha Snatcha* is also good fun.

ZZOOM 1983

■ This Spectrum favourite from John Gibson features a sim-style plane control panel, but it's actually a straightforward shooter in which you protect refugees from enemy forces. It's the little details that make it memorable, often involving innocents meeting unfortunate ends.

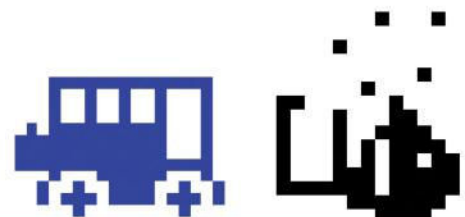


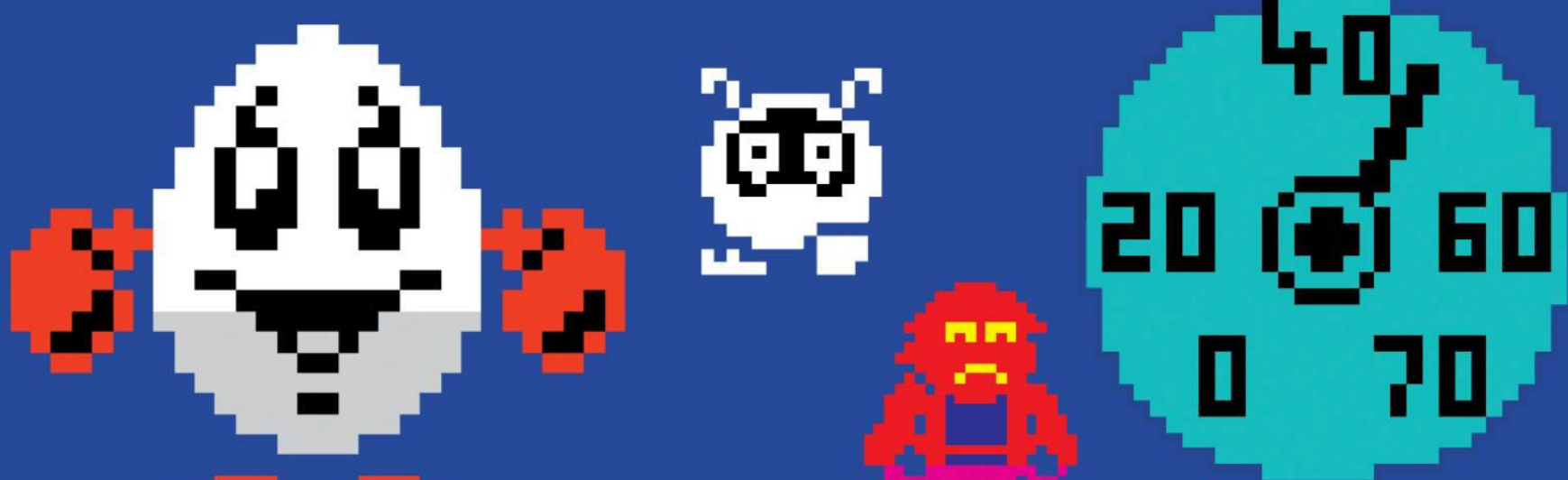
ALCHEMIST 1984

■ This graphic adventure for the Spectrum features a wizard who transforms into an eagle, allowing access to otherwise inaccessible areas of a castle. While the game suffers from jerky scrolling, it's still an enjoyable quest.

BC BILL 1984

■ One of the final games to be released by Imagine, *BC Bill* sees you playing as a caveman who survives by hunting women and gathering food. Featuring good cartoon graphics, this silly romp was released for the Spectrum, Commodore 64, Dragon 32 and BBC Micro (pictured).





TOP 25

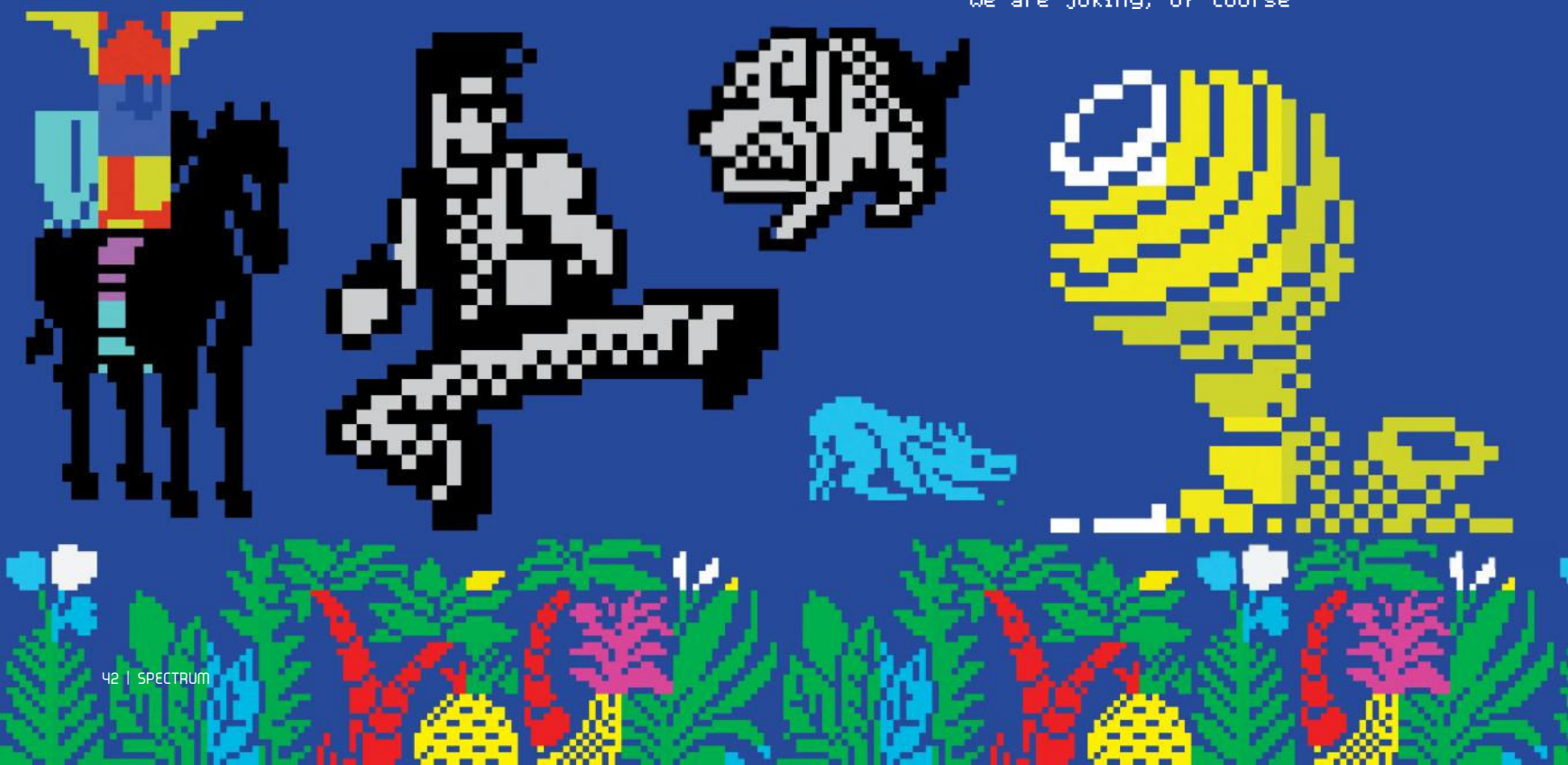
spectrum games



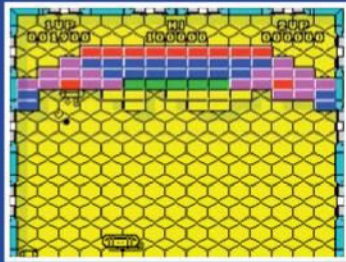
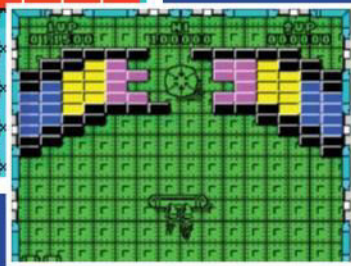
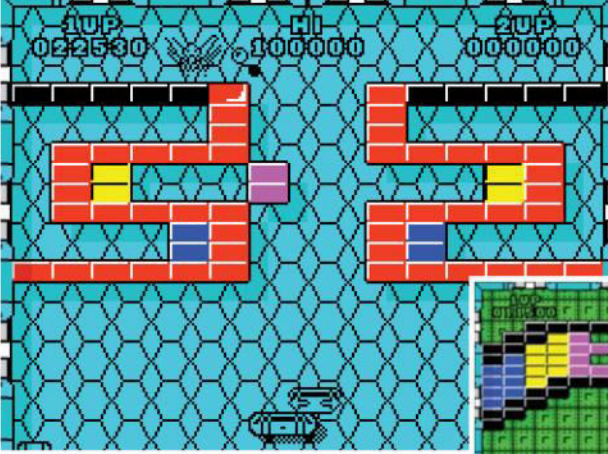
OF ALL TIME

JUST BECAUSE THEY'RE AMSTRAD BOYS
DOESN'T MEAN THAT STUART AND DARRAN
DON'T KNOW HOW TO LOVE ITS LESSER 8-BIT
RIVALS*. SO JOIN THEM AS THEY FIDDLE
WITH THEIR KEMPSTON INTERFACES, WAGGLE
THEIR QUICKSHOTS AND LOVINGLY LOOK BACK
AT SOME OF THE SPECTRUM'S GREATEST HITS

*We are joking, of course



TOP 25: SPECTRUM GAMES



Batty

■ Year: 1987

■ Publisher: Hit Pak

25 *Arkanoid* may have received an extremely polished conversion on the humble ZX Spectrum, but it couldn't compete with this monumental epic from Hit Pak.

Each level has been beautifully constructed, there are huge amounts of power-ups that include a bog-standard laser, your typical extender and a handy level warp, and there are also a variety of different options, including a wonderful co-op mode that effectively splits the bottom of the screen into two parts. You monitor one side of the screen, while a friend manages the other.

Add in some fiendishly well-put-together levels, some bold, cartoon-like visuals and some hellishly addictive gameplay and the end result is one of the best *Breakout* clones of all time. The fact that it was initially given away for free with *Your Sinclair* is absolutely staggering.



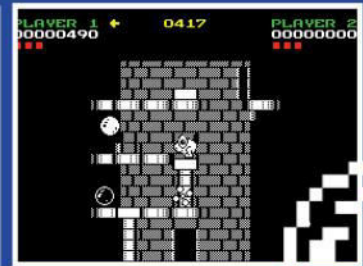
Cybernoid

■ Year: 1988

■ Publisher: Hewson Consultants

24 Raffaele Cecco's wonderful *Cybernoid* harks back to the good old days when game testing was solely the responsibility of the developer, shoot-'em-ups were one of the most popular genres around and games required pixel-perfect timing in order to proceed.

Cybernoid is possibly the toughest game in our top 25. It requires insane levels of concentration, dextrous keyboard and joystick skills and the patience of a saint. Despite this, *Cybernoid* always pulls us back for one more go and remains so polished you can almost see your face in it. What makes it so essential is its jaw-droppingly vibrant visuals, intricately designed levels and spot-on controls (it has the sort of pixel-perfect precision normally seen in platformers). It's not for everyone, but it's an experience that shouldn't be missed under any circumstances.



Nebulus

■ Year: 1988

■ Publisher: Hewson Consultants

23 There's a veritable deluge of brilliant platformers and puzzle games available on the ZX Spectrum, but very rarely are these two rather distinct genres successfully combined.

Nebulus – which is also known as *Tower Toppler* or *Castelian* depending on whereabouts you live – is a wonderful example of this combination of genres and sees you guiding a cute bipedal alien named Pogo to the top of several towers. Once at the top, these towers must then be detonated.

Working against a tight time limit, you're required to use lifts and handy doorways to zip back and forth through the cleverly rotating towers – a graphical feat that still manages to impress today – in order to avoid the tower's numerous enemies. As challenging to play as it is gorgeous to look at.

Fantasy World Dizzy

■ Year: 1989

■ Publisher: Codemasters

22 Ever since Philip and Andrew Oliver's ovoid creation appeared in the *Ultimate Cartoon Adventure* we've always had a soft spot for Dizzy. *Fantasy World* Dizzy is not only Dizzy's greatest 8-bit adventure, it's also the very last 8-bit Dizzy adventure from the Oliver twins – development duties for the game's sequels were handed over to Big Red Software.

The brothers certainly left on a high though. *Fantasy World Dizzy* is a huge, beautifully crafted adventure that features well-thought-out, and far better-balanced, puzzles, a new *Magic Knight*-style interface, the introduction of the Yolkfolk and a surprising amount of humour.

You may not be able to make an omelette without breaking a few eggs, but by not damaging their mascot the Oliver twins certainly proved that it was entirely possible to create an excellent arcade adventure.



"CYBERNOID IS POSSIBLY THE TOUGHEST GAME IN OUR LIST, REQUIRING INSANE CONCENTRATION, DEXTROUS JOYSTICK SKILLS AND THE PATIENCE OF A SAINT"

TOP 25 spectrum games OF ALL TIME



RoboCop

■ Year: 1989

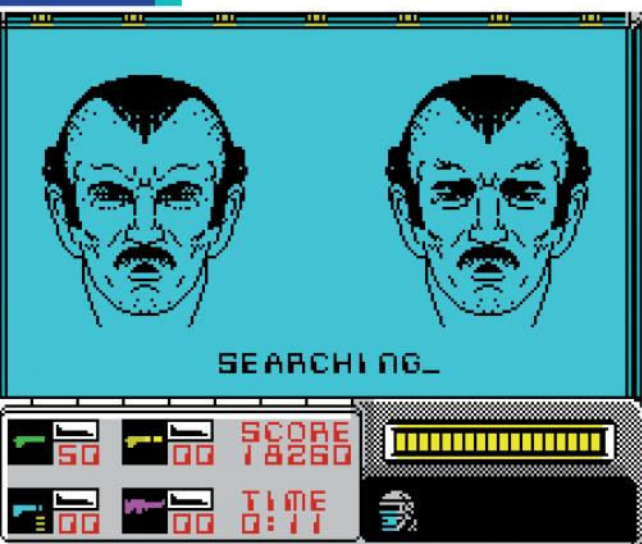
■ Publisher: Ocean



After churning out cheap-and-cheerful licensed dross like *Transformers*, *Knight Rider* and *Highlander*, Ocean turned a corner and began releasing quality movie tie-ins.

RoboCop remains one of the best examples, and by using the template of the incoming Data East blaster and juxtaposing the action with clever mini-games, such as rescuing hostages and putting face IDs together, Ocean created a tie-in that few other developers (Ocean included) were able to improve upon.

The mostly monochrome visuals do a great job of capturing the spirit of the original film, and while the action is a little more pedestrian than we remember, it nevertheless remains great fun to play. Film and TV licences were ten a penny on the 8-bit computers and it's a testament to both Ocean's development skills and *RoboCop*'s enjoyable gameplay that it's the only example to make our list.



Sabre Wulf

■ Year: 1984

■ Publisher: Ultimate: Play the Game

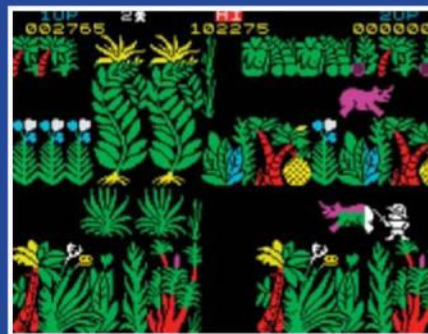


We've been playing Ultimate's brilliant *Sabre Wulf* for 24 years now and we still haven't been able to collect all four pieces of that

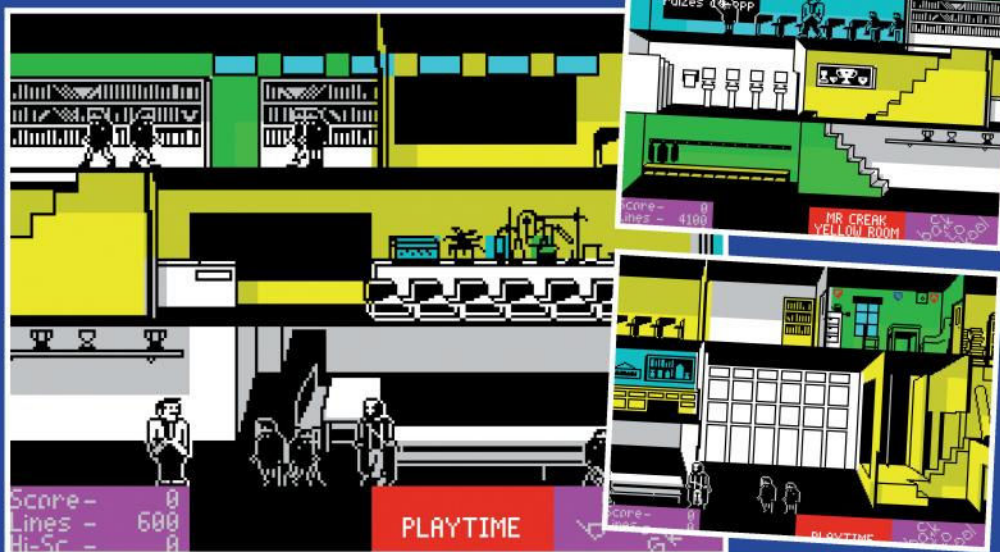
sodding amulet. Not to worry, though, it simply allows us to appreciate what a staggering game Sabreman's first outing actually is.

Taking place over an absolutely humongous 256 screens, you're required to do nothing more than explore the vast and varied jungle to recover the four aforementioned missing pieces of a precious amulet.

Of course, as you would probably expect, this is much easier said than done, and Sabreman has to contend with some rather angry natives, the titular Sabre Wulf and all manner of horrible jungle critters before he's able to complete his lofty goal. With its gorgeous visuals, fast-paced



gameplay and massive environment, *Sabre Wulf* is typical of the care and attention to detail that the Stamper brothers put into all of their early Spectrum games, so don't be too surprised if you see a few more Ultimate games before our top 25 Spectrum games feature is finally complete.



Back To Skool

■ Year: 1985

■ Publisher: Microsphere



After wowing Spectrum owners with the brilliant *Skool Daze*, David Reidy and Keith Warrington returned a year later with a sequel that was even more ambitious.

You were once again cast in the shorts and blazer of the mischievous Erik, but this time he was able to get up to even more mayhem and mischief. A new girl's school increased

the playing area. Erik also had access to stink bombs and water pistols as well as his trusty catapult now, while it was even possible for the little scamp to catch mice and frogs (of which the former could be released in the girl's school). Other improvements to the original included the ability to ride a bike and the handy option of opening desks in order to discover what was hiding inside them.

Back To Skool still proved hard going for those used to being hand led through their games, but it still managed a level of interactivity that few other Spectrum titles have ever been able to match.



Ant Attack

■ **Year:** 1983

■ **Publisher:** Quicksilver

18

Predating *It Came From The Desert* by a good six years, Sandy White's *Ant Attack* remains a game of stark beauty and cunning gameplay.

Taking control of either a young girl or a young boy – don't worry they control in exactly the same way – your task is to venture into the abstract walled city of Antescher in search of your missing beau.

While the first level is relatively easy – a quick hop, step and a jump over the wall and you're practically done – later stages are anything but, and it's here where White's true genius becomes apparent. Initially coming across as little more than a pile of hastily assembled Lego blocks, the city of Antescher soon reveals itself to be a deadly maze, where ants can jump out at you at any time.

Granted, you've got 20 grenades to take them on with, but the claustrophobia quickly sets in, and later levels became a frightening race against time as your ragged nerves deal with five or six ants, a missing loved one and a constantly ticking timer. Truly terrifying.



The Lords Of Midnight

■ **Year:** 1984

■ **Publisher:** Beyond Software

17

You'll never forget the first time you played Mike Singleton's *The Lords Of Midnight*. With its lavish

packaging, accompanying overlay card and distinct gameplay, it proved that there was more to the Spectrum than simple platformers and arcade conversions, and it remains a very atmospheric title without equal.

What impresses most about *The Lords Of Midnight* is its flexibility. While the main objective is to lead your four adventurers on a quest to destroy the fabled Ice Crown, it's possible to forget the task completely and just concentrate on amassing a huge army. If that doesn't take your fancy you can just as easily combine the two into an epic adventure that few other 8-bit games could match.

Massive in scale – the pseudo-3D graphics display over 31,000 different views – and rich in atmosphere, *The Lords Of Midnight* is a Spectrum title that everyone should experience. If you're familiar with it, go back and play through it again. A true classic.



"BACK TO SKOOL PROVED HARD GOING, BUT IT STILL MANAGED A LEVEL OF INTERACTIVITY THAT FEW OTHER SPECTRUM TITLES HAVE EVER BEEN ABLE TO MATCH"



Turbo Esprit

■ **Year:** 1986

■ **Publisher:** Durrell

16

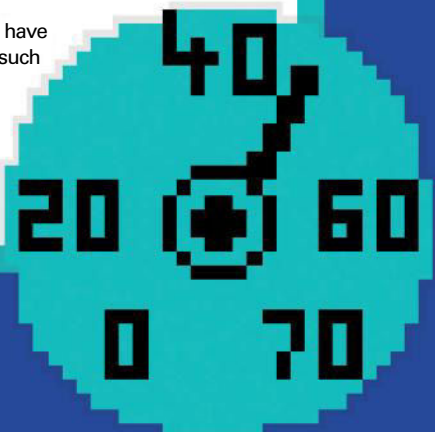
***Turbo Esprit*, not to be confused with the Gremlin game with a very similar name, is a criminally great sandbox game from the makers of *Harrier Attack*.**

This sublime little gem had you taking to the mean streets of Wellington, Gamesborough, Romford and Minster and indulging in a spot of covert stakeout-type drug busting.

Boasting bustling cities crammed with Durrell's signature ant-looking denizens, staggering AI and a novel feeling of freedom, *Turbo Esprit* would later go on to become a major influence on Rockstar's *Grand Theft Auto* series.

And while the game probably would have benefited from a slightly punchier title, such as '*Turbo Elite Cokehead Apprehender*', playing the game was still like being in your own episode of *Miami Vice*.

Quite simply there's nothing quite like it on the Speccy and so, for that reason, it's in.



TOP 25 spectrum games

OF ALL TIME



Jet Set Willy

■ Year: 1984

■ Publisher: Software Projects



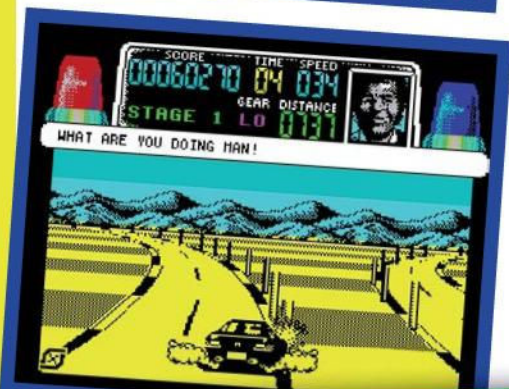
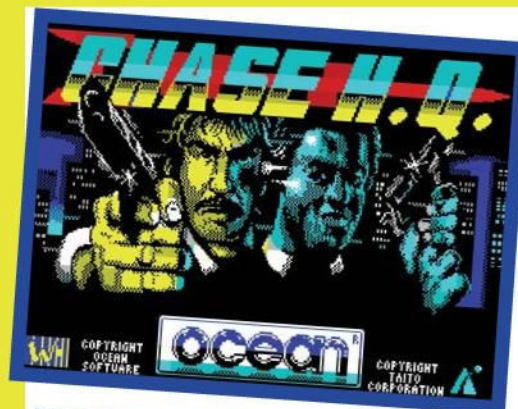
We've all been there, the morning after the night before. In this case, a house party, probably the outcome of a careless exchange on a popular friendship website, has meant that Willy's mansion, after being packed to the rafters with beer guzzlers and winos, has now been alcoholically decimated.

And to make matters worse for Willy, his lardy housekeeper has put her stomping foot down and is preventing poor Willy from going to bed, recharging the old batteries and promising to do something about the mess in the morning.

Matthew Smith's second house of pain was a sublime and simple platforming jaunt that built on the brilliance of *Manic Miner*.

Jet Set Willy was released into a swathe of high expectancy, both by gamers, preying that it would be as good, if not better, than the original, and by its publisher, who was hoping to make a shed load of cash – which was the reason that the game came packed with an annoying copy protection card.

Jet Set Willy's quirky and colourful palette, warped imagery and surrealist humour captured perfectly the irreverence of videogames of the time. And as it was built with the Spectrum in mind, it is widely considered to house the finest version of the game.



Chase HQ

■ Year: 1988

■ Publisher: Taito



Taito's wonderful pursuit racer still gets a lot of play in the Retro Gamer offices.

While we would lovingly hand the best conversion accolade to the Amstrad for its colourful finesse, the Spectrum's offering does feel fractionally more fluid, especially when you're belting across *Chase HQ's* quasi-3D tarmac, screaming, "Let's go Mr Driver!"

The Speccy has been blessed with some truly brilliant racing games in its lifetime, but *Chase HQ* showcases a real eye for detail and technical ability from Ocean. An almost impractical chasm sat between the arcade machine and the ZX Spectrum, and yet, somehow, Ocean managed to rev the Porsche 928 to pretty much clunking-out point before flicking a nitro switch and jumping that gorge magnificently.

Chase HQ was blessed with an almost perfect home arcade port – easily up there with the likes of *Sega Rally* and *Buggy Boy*. It is the quintessential Spectrum racing game and was massively popular with Speccy owners back in the game's heyday... so popular, in fact, that *Your Sinclair* readers went on to vote it the best Spectrum game of all time.

"JET SET WILLY'S QUIRKY AND COLOURFUL PALETTE, WARPED IMAGERY AND HUMOUR CAPTURED THE IRREVERENCE OF VIDEOGAMES OF THE TIME"

Chuckie Egg

■ Year: 1984

■ Publisher: A&F Software



Nigel Alderton's classic platformer is so ingrained in the minds of BBC owners that it's easy to forget it started off life as a Spectrum title. Based on some of Alderton's favourite coin-ops, such as *Donkey*

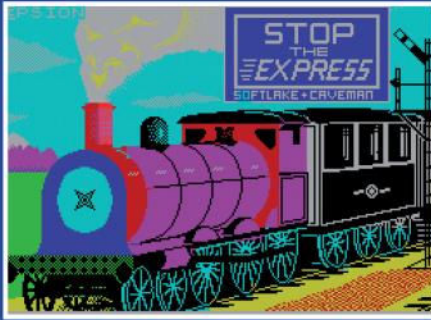
Kong and *Space Panic*, *Chuckie Egg* is an insanely fast platformer that sees hero Hen House Harry going up and down ladders and leaping across platforms in search of eggs, while avoiding the angry hens.

Unlike other platformers of the time, which were more methodical and slower-paced, '*Eggy Kong*' (as it was originally known) dashed along at a cracking pace and really felt like it

had escaped from your local arcade. It may have only had eight levels, but they were fiendishly designed and it wasn't until several loops had passed and the huge caged duck had been released that you began to appreciate just how expertly crafted they were.

It's not one of the Spectrum's most original platformers, but there's no denying that it's one of the most polished. A classic in every sense.





Stop The Express

■ **Year:** 1983

■ **Publisher:** Sinclair Research Ltd

12 If we're honest, 12th seems a little meagre for this sublime Hudson title, but the reasoning is this: there really is an abundance of top-notch games on the Spectrum.

Chunky arcade-style graphics, quirky premise and compulsive playability sum up all the factors that make a classic retro game, and *Stop The Express* succeeds in ticking all those boxes.

Playing a shaggy-haired blonde chap in green pyjamas, it was your job to stop a train by fighting your way from one end to the other. Trying to put a leaf on your track were 'train gangsters' who could be felled by grabbing and kicking 'snake birds' at them. Brilliant.



After you'd traversed the first ten carriages from the rooftops, the game put you inside the train, where you had to avoid more dagger throwers and the ectoplasm of trundling ghosts.

Stop The Express is a simple and beautiful Speccy game. We believe a "Congraturation! You success!" is firmly in order here.



TLL

■ **Year:** 1984

■ **Publisher:** Vortex Software

11 If you're the sort of Spectrum owner who's constantly hounded by C64 and Amstrad owners, show them Vortex Software's amazing *TLL* and watch them shut up faster than a superglued clam.

Created by Costa 'Deflektor' Panayi, *Tornado Low Level* (to give it its full title) is an insanely slick looking title that features some of the smoothest and flicker-free scrolling you're ever likely to see on Sir Clive's humble 8-bit.

Taking control of a Tornado jet, you're simply required to fly around and participate in strategically placed missile strikes. There are no actual enemies and nothing to shoot at; it's just your fighter, a constantly dropping fuel supply and plenty of hazards – trees, houses, telephone wires – to avoid.

It sounds simple, boring even, but this couldn't be further from the truth. *TLL* requires a cool nerve, insane gameplay skills and a hefty pair of balls – you have to fly dangerously close to the ground to bomb your targets – and is not for the faint-hearted.

Those feeling the need for speed, however, will discover a title that's not only graphically amazing, but, more importantly, has the actual gameplay to back it up. Stunning. Simply stunning.

Starquake

■ **Year:** 1985

■ **Publisher:** Bubble Bus



Stephen Crow's *Starquake* may share many similarities with a typical Ultimate release – brilliantly drawn visuals, engaging gameplay, strong main character – but extended play soon reveals it to be something quite different.

Essentially a cross between a shoot-'em-up, platformer and an adventure game, *Starquake* is a fun title that casts you in the form of BLOB (Bio-Logically Operated Being) who must find the missing parts of his crashed spaceship.

Fortunately, in order to make traversing the huge – 512 screens – planet easier, BLOB has a number of handy abilities. As well as being incredibly fast – the game pelts along at a cracking pace – he can create platforms, which last for a limited time, to reach out of the way areas, or he can simply jump on to a nearby hoverboard (although this makes it impossible for him to pick up items). There are even handy teleports to use, therefore making the gigantic world far more manageable.

With its beautifully drawn visuals, clever mishmash of genres and addictive gameplay, *Starquake* manages to deliver an experience that's quite unlike any other Spectrum release. Visit the World Of Spectrum website today to discover its magic for yourself.



TOP 25 spectrum games

OF ALL TIME

The Great Escape

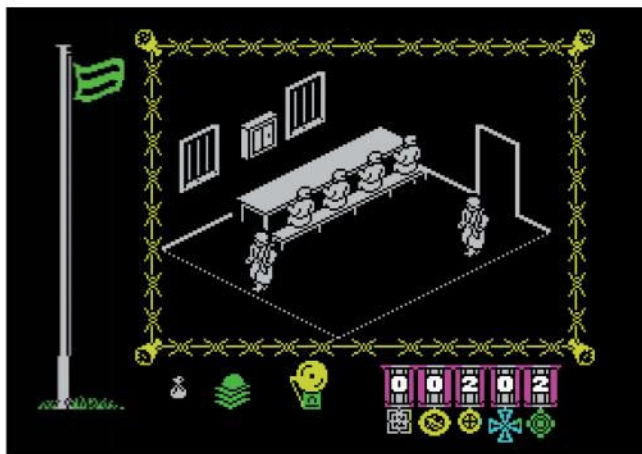
■ Year: 1986

■ Publisher: Ocean

9 This hazy movie tie-in by Denton Design proved to be a very surprising hit for Ocean when it was released on the Spectrum. *The Great Escape* plonked the player into a peculiar monochrome ritual of breakfast, roll calls and wily absconding.

It was a brilliantly designed game that brimmed with a stellar cast of innovative ideas – it offered various different escape routes from the camp and your hero would automatically adhere to the camp's routines if you left him to his own devices for too long. *The Great Escape* proved to be a trailblazing Spectrum classic that benefited from the computer's small colour palette by coating the game in a tense cheer-destroying bleakness.

It also helped to give movie tie-ins some credibility, dragging the much-reviled genre out of solitary confinement and proving that it could fit in with the rest of the law-abiding game genres that existed at that time.



Knight Lore

■ Year: 1984

■ Publisher: Ultimate

7 Sabreman returns to the Spectrum, but this time around he's gone isometric! After

wowing gamers with titles such as *Jetpac*, *Sabre Wulf* and *Pssst*, Ultimate ushered in a whole new era of Spectrum visuals by dressing up Sabreman in some brand new isometric clothing.

Granted, an isometric Spectrum game was certainly nothing new – take a bow 3D *Ant Attack*. However, Ultimate's new 'Filmation' engine pushed the unique-looking style to previously unseen levels and delivered a title that was both stunning to look at and an absolute joy to play through.

After receiving a wolf bite at the end of *Sabre Wulf*, Sabreman has to explore the enormous castle and create the potion that will help to free him from his lycanthropic curse. Along the way he also has to deal with some incredibly fiendish puzzles that require critical timing, fast reflexes and plenty of skill. Oh, and did we mention that the poor blighter turns into a werewolf every evening?

Constantly imitated (most notably by Ultimate itself), but very rarely bettered, *Knight Lore* is a gloriously fun adventure that not only helped to cement the Stamper brothers as a force to be reckoned with, but also proved that Sir Clive Sinclair's humble 8-bit machine still had the ability to pleasantly surprise.



R-Type

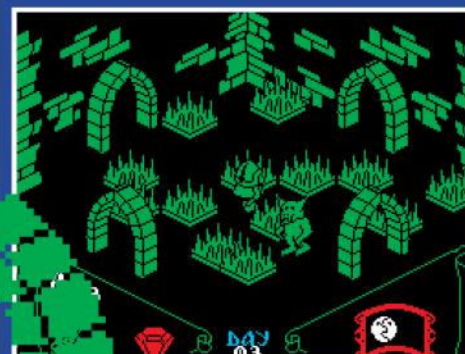
■ Year: 1988

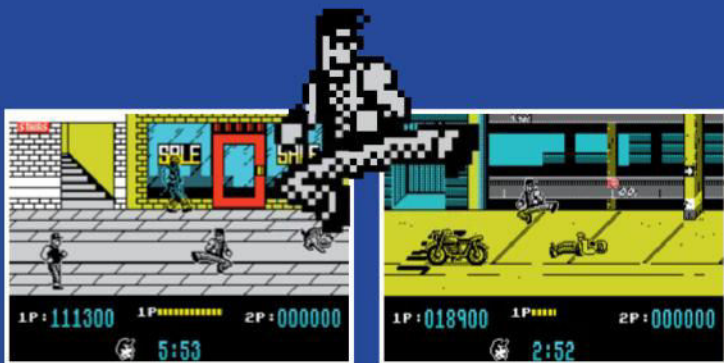
■ Publisher: Electric Dreams

8 It's been 20 years now and we still can't work out how Bob Pape and Mark Jones pulled off this stunning conversion (if you're reading guys, we'd love to hear from you).

Anyway, *R-Type* on the Spectrum is a thing of beauty and is easily the best arcade conversion to grace the machine. The graphics are incredible, with huge, brightly coloured sprites, very little colour clash, insanely smooth scrolling and amazing looking bosses. Level layout throughout is virtually identical, with many classic scenes from the arcade original being instantly recognisable, making for a wonderfully authentic experience.

It wasn't just *R-Type*'s gob-smacking visuals that impressed, as its gameplay was just as finely honed. The force might not have been as responsive as its arcade parent, but that's our only niggle, everything else – enemy placement, movement and structure – is near identical, meaning that many of the tricks can be pulled off perfectly. An astounding conversion that proved to Amstrad and C64 owners that the Spectrum was still a force to be reckoned with.





Target Renegade

■ Year: 1988

■ Publisher: Imagine



What do you do when you release a hit conversion of a popular arcade game that's never been blessed with a proper sequel? If you're Imagine Software you simply release your own unofficial spin-off that's even better than the arcade original.

With its bold, cartoony visuals, incredibly violent gameplay and frantic two-player action, Imagine's *Target Renegade* instantly captured the hearts of those arcade gamers who were obsessed with Technos' *Double Dragon* and delivered a home experience that no other fighter of the time was able to match.

Never mind that the plot's flimsier than a house of cards and has the disgraced gangs trying to redeem their honour by killing the renegade and his identical twin brother – *Target Renegade* was all about the action and Imagine did not disappoint. Punches, vicious knees to the groin and flying kicks were just a few of the moves the brothers had access to, while weapons like hammers, chains and even pool cues could be used to dish out additional hurt to your hapless foes. Excellent stuff.



TOP 25: SPECTRUM GAMES

Manic Miner

■ Year: 1983

■ Publisher: Bug-Byte



Manic Miner created many imitators upon its release way back in 1983, but none quite managed to reach the heights of the original. It is the Spectrum's best platformer by a distance and a stunning example of the genre.

Despite being only 20 screens long – although it would take you some time to finish – *Manic Miner* proved to be the crowning jewel of Smith's short-lived career and delivered an experience that, if we're truly honest, Smith never had a fair chance of succeeding. Indeed, it's very much platform perfection.

Every enemy is well placed, the structure of each platform feels almost organic, while the pixel-perfect jumping will never – for the most part – test your patience. With its jaunty opening, boot-stomping ending and bizarre range of enemies, Smith's game proved to be a masterpiece that, even over 30 years later, still manages to impress.

An utterly ingenious piece of programming that shows just how far you can go with sheer talent and a very healthy imagination.



Elite

■ Year: 1985

■ Publisher: Firebird Software



We came extremely close to leaving *Elite* out of our top 25 list altogether, mainly due to its heavy association with the BBC

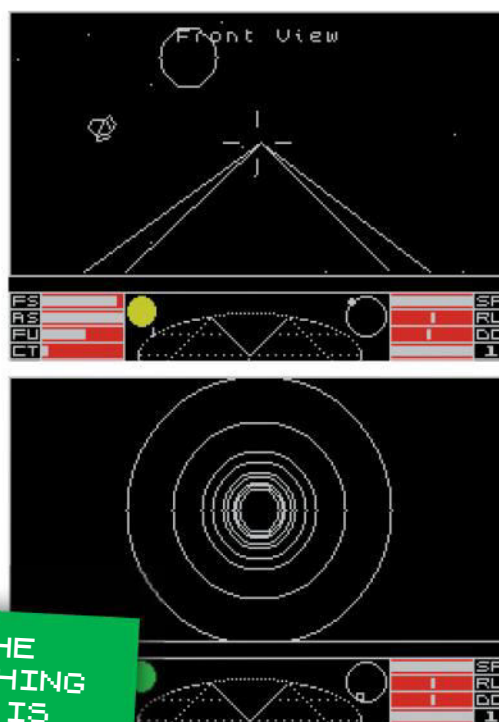
Micro. However, after giving it a little bit of thought, we suddenly realised that there's no other Spectrum game out there that offers the same kind of unique experience as *Elite* does.

With Firebird owning the rights to a glut of new systems and David Braben and Ian Bell busy at work on other conversions, it was left to Torus to handle the highly anticipated Spectrum conversion. Fortunately though, the end result was a highly accurate recreation of the original BBC release that not only offered the same sense of wonder and astonishment that the BBC and Acorn outings had delivered a year earlier, but even added a few original touches of its own.

Armed with nothing more than a Cobra Mk III and 100 credits, the universe of *Elite* is literally your oyster and you're given a

real sense of freedom that is incomparable in other Spectrum releases. It might be a little more sluggish when compared to its BBC counterpart, but the same gripping and absorbing gameplay remained, and Torus even had the foresight to include several new missions that had never actually appeared in the BBC and Acorn originals. Ultimately though, for all its cosmetic changes, this was *Elite* through and through and it instantly received rave reviews from popular magazines such as *Crash* and *Sinclair User*.

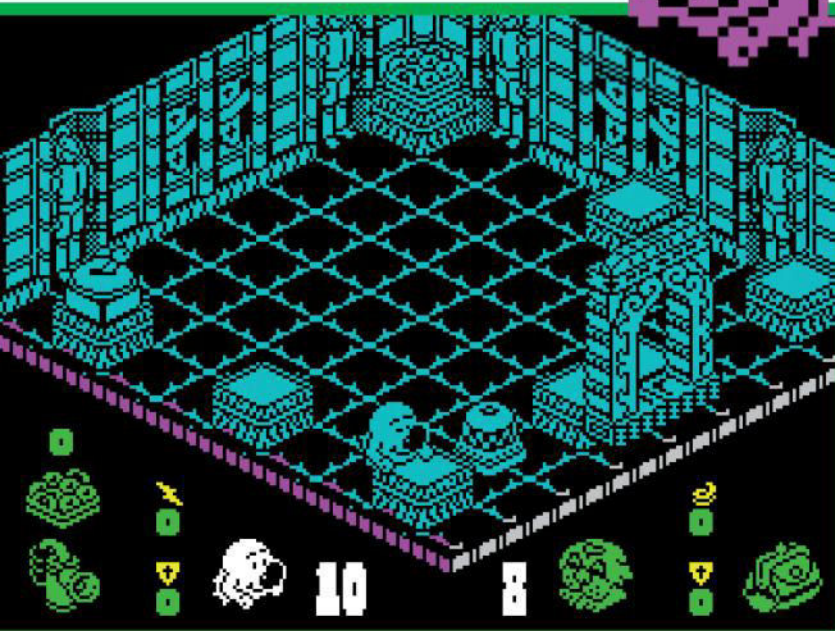
With its sandbox gameplay, challenging moral dilemmas – did you always play as the good guy, or occasionally go after some easy bounties? – and beautiful – if rather stark – wireframe visuals, *Elite* remains a true classic of the Eighties that no self-respecting gamer, Spectrum or otherwise, should go without experiencing at least once in their lives.



"R-TYPE ON THE SPECTRUM IS A THING OF BEAUTY AND IS EASILY THE BEST ARCADE CONVERSION TO GRACE THE MACHINE"



TOP 25 spectrum games OF ALL TIME



Head Over Heels

■ Year: 1987

■ Publisher: Ocean



After the arrival of *Knight Lore* in 1984, virtually every videogame publisher began jumping on the isometric bandwagon, desperate to cash in on what was becoming a rapidly popular genre. Despite many fine efforts – the majority of them usually being from Ultimate – none have ever come close to the sheer brilliance of John Ritman's utterly sublime *Head Over Heels*.

After cutting his isometric teeth on the thoroughly enjoyable *Batman*, Ritman's next project would be far more ambitious and included more devious puzzles, many, many more screens to explore, and, in a twist that was highly original for the time, two distinctive characters for the player to control; each with their own special abilities.

Head was a large-nosed... well, head... with a pair of stubby wings that enabled him to make mighty jumps and also glide for short periods, while Heels was an adorable puppy-like creature whose huge feet allowed him to quickly move through Bernie Drummond's surreal-looking environments. Originally known as 'Foot & Mouth' the duo are not only insanely cute (no easy task when you're dealing with a limited amount of pixels), but instantly recognisable to anyone from the 8-bit era.

Initially trapped in the bowels of Blacktooth Castle, your first task is to actually escape. These early screens are not only filled with some brilliantly conceived puzzles, but also act as the perfect tutorial for both Head and Heels' skills. Of course, once you've struggled through these first 40-odd rooms and managed to escape, your adventure not only truly begins, but Ritman also plays his masterstroke by revealing that the two odd-looking fellows can be combined to create one super-being.

It's not only a brilliant touch, but also enabled Ritman to create even more devious puzzles, as you were now forced to tackle rooms in a variety of different ways, with many of the later screens requiring a considerable amount of head scratching before you could finally move forward.

Spread across a total of five huge planets (each with its own distinct themes), and populated with some truly wacky sprites – Bernie Drummond created everything from a Prince Charles-headed Dalek to staircases made out of puppies – *Head Over Heels* is an unmissable adventure that's not only filled with enough charm to sink a battleship, but proves that two heads (okay, a head and heels) really are better than one.



Chaos

■ Year: 1985

■ Publisher: Games Workshop



Julian Gollop lent his brain to some of the finest strategy games to appear on the 8-bit micros. His

greatest works include, to name a few: *Laser Squad*, *Lords Of Chaos*, and the sublime *Rebelstar*.

Set on the planet of Limbo, *Chaos* was a very early and deceptively deep strategy game. If you've ever wondered why Games Workshops still seem to inhabit the high streets, or considered taking that plunge into the 'strat-o'-fear', then you should really make *Chaos* the next game you boot up and play. But be warned, set aside a quiet afternoon because it's annoyingly addictive.

Beginning with a series of questions to help you create your hero and set you on course for the wonderful world of wizard duelling, the game then gave you the keys to a messy magical melee against up to seven other wizardly foes.

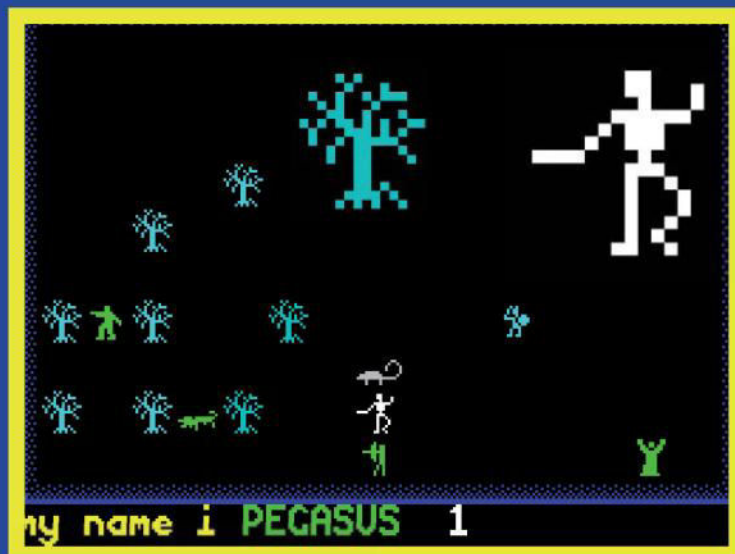
Okay, the graphics looked crude, and it wouldn't do much to impress any of your C64 and CPC chums, but its rudimentary look made getting a head around all the spells and rules of engagement more accessible.

After you had created your wizard, he would be blessed with a random collection of spells to help you vanquish your opponents.

The most innovative feature about *Chaos* was the fact that during play, being that your spells were purposefully temperamental little buggers, there was no guarantee that they would actually work.

The more potent the spell, the higher the risk of seeing it seize up on you. So while the Giant Rats were reliable, trying to persuade your Speccy to let you have access to one of *Chaos*'s bashful Golden Dragons would prove a little trickier.

To improve your odds you could cast some of the smaller spells to influence the laws of the game board and make opting for the stronger enemies less of a gamble, opening up a world of tactical possibilities.



"PLAYING A FUTURISTIC BOUNTY HUNTER, 3D DEATHCHASE HAD YOU SWERVING THROUGH FORESTS OF EVER-INCREASING DENSITY TO CHASE AND BLOW UP TWO MOTORCYCLISTS"

SPECTRUM GAMES



3D Deathchase

■ Year: 1983

■ Publisher:
Micromega

Now if you're a tree hugger, tree surgeon or a puppet you might want to avert your eyes, because this is a game that will more than likely cause you to grab the closest chainsaw and stick it into the nearest available hunk of wood.

Yes, this game does absolutely nothing for relations between humans and trees, but tons for the Speccy, 9K and gamer dealings. Now there really is only one word to describe *3D Deathchase* and that word is: trees.

So, out of the billion or so Spectrum titles that were ever released, why should *3D Deathchase* be considered the zenith of the machine? After all, many magazines of the day weren't overly kind towards the game when it was released. *Sinclair User* awarded the game a measly 60% and the

oracle of Spectrum gaming *Your Sinclair*, weren't massive fans of the game either. It took Stuart Campbell to right past wrongs when he compiled and wrote the magazine's Top 100 Speccy games of all time list and reserved the number one spot for this brilliantly simple game.

Admittedly, the game is blessed with the most inanimate of enemies: trees. So yes, to some it might sound like a profoundly stupid idea in principle, and with a lot of green, blue or black – depending on whether you were on 'night patrol' – permeated with plenty of lofty orangey thick lines, it would be fair to say that it didn't really look all that fantastic neither.

We would have loved to have been in the room when Mervyn Estcourt pitched his idea to Micromega though...

"So then Mervyn, just so I'm 100 per cent clear on this. You want to make a pseudo-3D *Space Invaders* game about driving a bike through a forest. Oh, okay, so

what do you have to fight? Other bikes, okay, and these bikes, they can fight back right? They can't fight back, okay, right, so where's the actual threat, where are the enemies in your game? The trees you say, as in the green leafy things outside? And these trees, you're giving them guns right?"

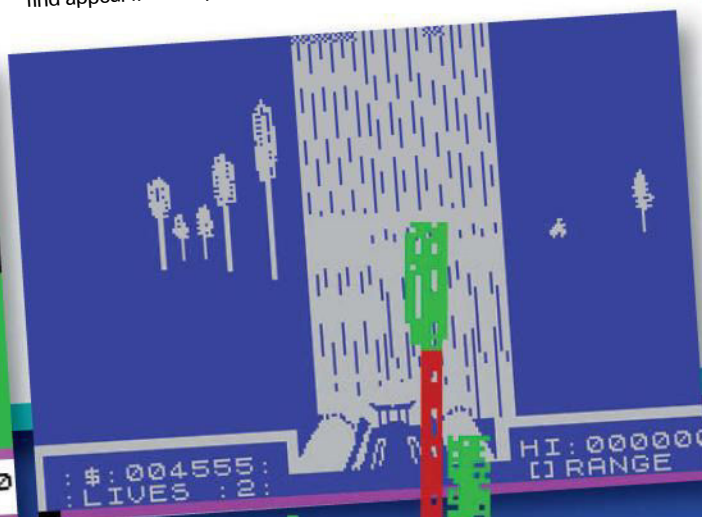
Playing a futuristic bounty hunter, *3D Deathchase* found you swerving through bountiful forests of ever-increasing density to chase and blow up two brightly coloured motorcyclists. Your enemies rely on astonishing driving abilities to draw you into groups of trees, with the hope that the Ents dish out some tree-hurt.

The greatest aspect about *3D Deathchase* was the sheer simplicity of the thing. The whole principle of the game was to avoid and invade. And the game occasionally threw in mothership-style bonus targets that allowed you to earn extra points.

Star Wars fans would probably find appeal from its peculiar

similarity to the speeder bike chases in *Return Of The Jedi*, and wannabe Jedis would lovingly replay the scenes by booting up the game in tandem with a rather rich imagination.

The game also featured brilliantly swift scrolling and, with the trees on the later stages coming at you at breakneck speeds, an ingenious and visually fathomable difficulty curve was brought to the game. And when the game switched from day to night, the menacing dark sky would cause the pursuit to become a shade twitchier and destroying those skittish bikes that extra bit harder. It was all in your head though and, secretly, you knew it. You could never get angry at *3D Deathchase*, though. With all of the game's win/lose elements so clearly defined, unwittingly becoming one with nature was always of your own doing. A genius game, with a genius concept... quite simply: genius. *3D Deathchase*, we salute you.



THE CLASSIC GAME

Trashman



Cyclists

Watch out for cyclists pedalling down the pavement. Get struck by one and the collision will cause Trashman to temporarily limp, slowing him down.

Cars

Despite taking place in a leafy suburb, the streets are surprisingly full of speeding fools, all driving identical-looking cars.



Dustcart

Slowly making its way up the road is the dustcart, which is where Trashman must deposit the garbage. He has to be quick, though, as it won't wait around.



Trashman

Our hero, the hard-working Trashman, might be working to an incredibly tight schedule, but he still has to make time for his customers.



Customers

If Trashman clears a bin without standing on their grass, the owner will invite him in for a nice chat. It's all a bit *Confessions Of A Dustman*.

Dustbins

These are the objects of your desire. With each street you have to clear a mandatory number of bins before you can proceed to the next.

Proving that you could make a great game out of pretty much any subject if you approached it in the right way, *Trashman* was anything but a load of old rubbish. As a lowly refuse collector, it was your job to clean up the streets, literally, by clearing up the garbage of little computer people and being careful not to get killed by speeding lunatics, bitten by crazed dogs or crashed into by idiot cyclists. Stuart Hunt likes to get down and dirty.



Good clean trashy fun

Thanks to the likes of *Manic Miner*, *Monty Mole* and *Paperboy*, working class heroes were well represented in videogames during the Eighties, but none of those classic titles captured the spirit of their associated job as successfully as *Trashman*. The little touches, humour and impressive attention to detail in its sedate gameplay made it such a joy to play. Graphically it ticked all the boxes too, with its top-down viewpoint providing the perfect overview of its colourful streets. It's a unique game with timeless gameplay, and that's why it's a classic.



Man at work

If you're wondering how *Trashman* managed to take a laborious job and turn it into an entertaining computer game then allow us to explain. With each street you are given a requisite number of bins to empty. Once collected from the customers' front gardens, you must carry the bins to the dustcart, empty them out and then return them. You have to be mindful of busy traffic, cyclists and dangerous mutts, but mostly of a depleting bonus score, which is also your time limit. Fortunately, you can earn more time by stopping to chat to the snitching bozos to earn tips.



Kissing goodbye to a busy week

Our favourite moment in *Trashman* has been when completing a week's work, earning a diploma and finishing the game. It's not easy to do. The final street has you collecting a staggering 12 bins, and when you empty the final one its owner will invite you in for a quick drink. Take up the offer and Trashman will emerge from the house as Trashedman, completely sozzled and unsteady on his feet. It provides a funny close to the game that sees you helping the staggering hero slowly saunter to the end of his route in one piece. You can decline the drink, but you'll be missing out on a nice tip.



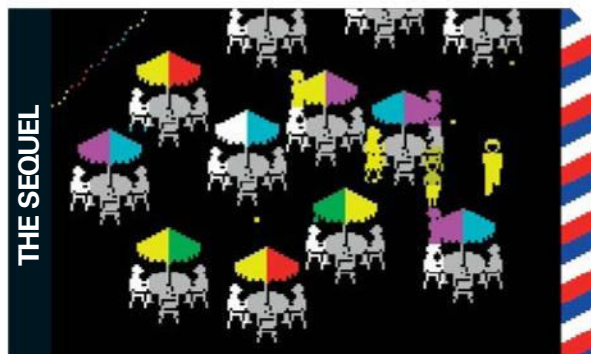
The little things

Fusing elements of *Frogger* with *Paperboy*, what makes *Trashman* so entertaining is its design. Its gameplay essentially boiled down to helping Trashman avoid dangers to clear enough rubbish in an allotted amount of time. While this probably doesn't sound all that interesting on paper, the well-realised streets are what bring the whole experience to life. *Trashman* is full of nice little ideas that make it more involving, from naming your dustman and having your bonus time docked for trampling on well-tended lawns, to getting a peek behind the curtains of the bizarre lives of your customers.



The old ones are the best ones

A strong part of *Trashman*'s charm is its quintessential British humour. There are a number of game references smattered throughout – from Trashman's delight at receiving a free Spectrum from a concerned mum, to a reference to creator Malcolm Evans' earlier hit *3D Monster Maze* when one customer offers him a copy. By far the most edgy gag in the entire game, though, occurs when Trashman is knocked down by a speeding car. Spelling the end of our hero, a news flash reporting on his death pops up on screen, and in the same story tastelessly mentions the favourite for the 'Trashman of the year' awards.



Dustman's holiday

After working his socks off, our hero took a busman's holiday for the sequel. *Travel With Trashman* saw the binman take his refuse-collection talents around different places on the globe. With elements of a business management sim, given that you must earn and manage your cash to buy tickets to each exotic destination, the sequel had our hero collecting up rubbish in some pretty unusual situations. A trip to Spain finds him collecting bouquets in a bullring, while the outside of a Parisian café is the setting for an outbreak of frogs. It's an entertaining sequel but not a patch on the original.



IN THE KNOW

- PUBLISHER: NEW GENERATION SOFTWARE
- DEVELOPER: MALCOLM EVANS
- RELEASED: 1984
- GENRE: ACTION
- EXPECT TO PAY: A FEW QUID

What the press said... ages ago



Crash, 83%

"*Trashman* is an immensely playable game that is very addictive at first, but I think that quality might wear off after a while. Nevertheless, it's the best game that New Generation have produced yet."

What we think

It's an unusual game that has aged brilliantly. Indeed, if you've never played this evocative classic then we urge you to do so immediately. You won't regret getting your hands dirty.

SCOOPY

When Elite couldn't squeeze their Scooby-Doo cartoon into a Spectrum they asked Gargoyle Games for an alternative. Developers from both firms tell Rory Milne how Scooby ended up in a frantic platformer

By the mid-Eighties, Elite Systems' co-founders, Richard and Steve Wilcox, were no strangers to licence-based videogames. In fact, their West Midlands operation had thrived on working with licences from their first release onwards. But Richard remembers *Scooby-Doo* representing far more to him than just a licensing opportunity. "God, I loved the *Scooby* cartoons. I still do, they're probably my favourite of all time. Not quite sure who had the idea of licensing *Scooby*. It's highly likely that I would have suggested

it, but Steve would have done the deal. He was very good at tracking down who owned the rights and getting the licences even though the TV and film companies weren't attuned to merchandising and rights exploitation like they are today."

Once Steve had secured the *Scooby* licence, however, brother Richard took the lead on designing a game that would do justice to his favourite cartoon. "When it came to what the *Scooby* game would be the design really fell to me. I was never a great programmer and only a very mediocre designer of graphics, but I wasn't a bad games designer. I was methodical and structured even



» Richard Wilcox has been in video production for 20 years and runs his own company.



» Jon Harrison is the director of a small studio focused on web, design and app work.



» Scooby's mission to free his friends begins by punching a few ghosts in the face!

back in those days when the idea of creating a game design document before starting coding was alien. The ambitions for *Scooby* were enormous. Even though it would sell because of the licence, I wanted it to be a great game in its own right. The prototype was Don Bluth's *Dragon's Lair*, something that looked as good as any cartoon but was interactive. To me, it seemed that if we could at least distil some of the elements of that then we might have a chance of telling a real *Scooby* story, and make something that felt at least a little bit like an episode of the show."

Of course, Don Bluth's interactive cartoon was stored on spacious LaserDiscs while Richard and his team had to fit their project into the Spectrum's comparatively meagre RAM chip. "The big difference between that game and ours would be the hardware. Theirs was pulling the animation off LaserDisc. We just had 48K of RAM in which to cram all of our animations. In our defence, we gave it a pretty good shot. I came up with what these days you might call a 'game engine' that allowed us to define and run interactive scenes. It was pretty darn powerful and allowed you to create mini-games that were extremely varied. The really clever thing was that you didn't need to code each mini-game separately; we had developed a scene designer

tool, which allowed you to do the layout and define the interactivity. This tool then encoded the levels in such a way that they could be played back in real time. Andy Williams did the coding. He was Elite's number one programmer and, of course, he nailed it. But what killed us was the graphics. I hadn't accounted for just how much animation we would need and how long it would take and ultimately how much memory it would need... memory that, of course, the Spectrum didn't have."

Elite's Jon Harrison has memories of the *Scooby-Doo* art team making great progress on the game's visuals before a press visit gave them cause for concern. "We pretty much designed 80 per cent of the game. I'd even thought as far ahead as the loading screen. I know I'd filled over 40 Microdrives with graphics. I had a stack over a foot and half sellotaped together – I think they are still in my loft along with a lot of other game memorabilia. I remember the



SCOOPY-DOO 101

■ It has no intensive platforming – there are occasional stairs to climb and gaps to jump, it has no intensive opponents – foes are defeated with single jabs. But *Scooby-Doo* is certainly intense and ensures a constant state of fight or flight by throwing multiple hazards at the player from close range.



IN THE KNOW

» **PUBLISHER:** Elite

Systems

» **DEVELOPER:**

Gargoyle Games

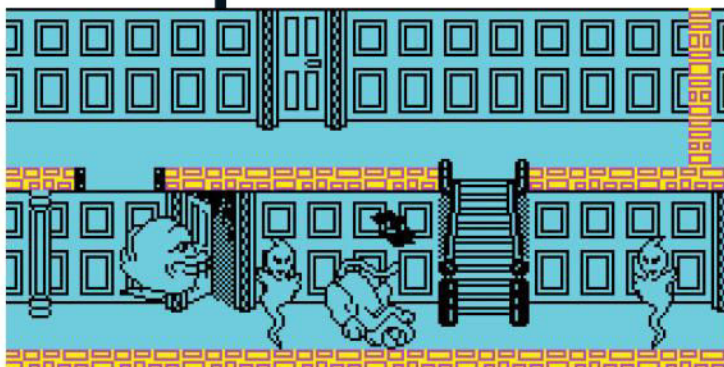
» **RELEASED:** 1986

» **PLATFORM:** Various

» **GENRE:** Platformer



» As well as ghoulish opponents on each side, some levels see Scooby attacked from above.



» A moment's indecision allows two ghosts to spawn above and below a mid-level Scooby.

► Crash team coming to do an article, taking a photo and us discussing it after. We'd played a couple of demo sequences and I think the penny was dropping that we'd filled 48K with just those. But both Gary and I kept on drawing. Every pixel was plotted with a Kempston joystick."

As concerns over *Scooby-Doo's* graphics increased, Jon recalls compression and a Microdrive release being discussed, multi-loads not being considered and, finally, Elite's *Scooby* gang splitting up. "Multiple loads on cassettes? I think people would have killed us! We were so ambitious it was crazy; each scene was a mini-film. It needed so much in terms of graphics, and although we could make the backgrounds minimal we just kept going overboard on the characters – okay, I did. We had an opening scene in a castle room. Scooby was asleep on a windowsill, Shaggy in the bed. Full screen – both snoring – bang, there's 48K gone. Next load. Trap door opens, Scooby falls down. Next load. And so on... We thought the code could compress things, but it just couldn't

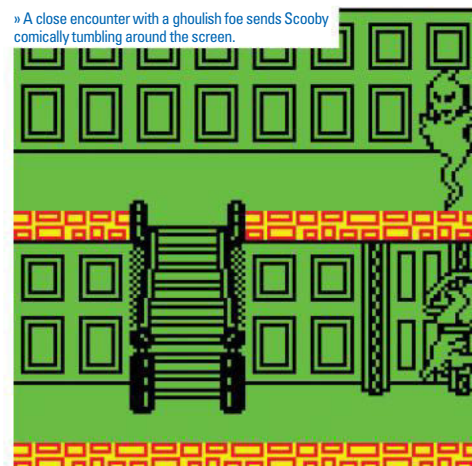
handle it. We thought Microdrives would be popular, but it never happened. Then we started to get pulled on to other projects. I started work on *Paperboy C64*, Gary left to join Gremlin Graphics, Andy left, Rich left to pursue other options so *Scooby* just fizzled out."

After moving on, Richard Wilcox realised that his ambitious project had simply been conceived too early, but he reveals that its time may now have come. "It was ahead of its time. A few years down the line when art teams were much bigger and machines had more memory we would have got there. I still don't think there's been a game that has combined the best elements of cartoons and games."

Back in early-1986, however, Elite held the rights to publish a much-publicised *Scooby-Doo* title but lacked a completed game. Steve Wilcox's solution was to use the licence to close a deal he had been chasing. "Elite always had a very simple way of doing things. Acquire the rights to a great arcade game, TV show, film etc and then find the best developer – usually one working on original games rather than well-known names. Gargoyle Games already had a reputation as a fine developer and had the additional benefit of being local. Elite had courted Gargoyle for some time. When the opportunity to work on *Scooby-Doo* came along it was one we just couldn't miss."

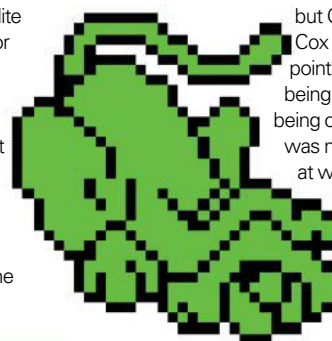
Elite artist Jon Harrison's recollections of Gargoyle's *Scooby-Doo* takeover are that the

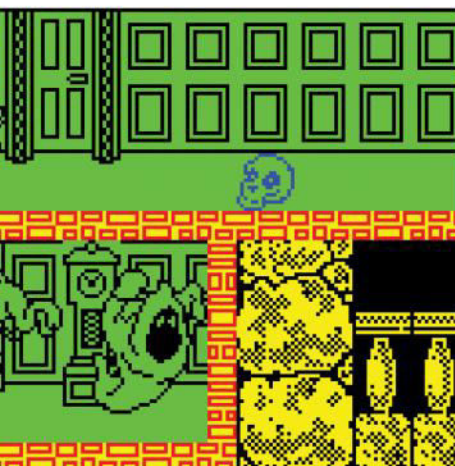
» A close encounter with a ghoulish foe sends Scooby comically tumbling around the screen.



original *Scooby* team were too busy for regrets. Jon even jokes about it all now. "We'd all moved on and *Scooby* was a dead project by the time we found out Gargoyle had been asked to take it over. I still show people what we wanted to achieve back then. Now it would be 100 people doing a groundbreaking game. Back then it was four teenagers with two Spectrums, a partially working joystick and half an A4 pad. Classic."

Unlike *Scooby-Doo* episodes, the early development of Gargoyle's take on the animated mutt remains a mystery, but Gargoyle artist Stuart Cox describes the mid-point of its creation as being fast-paced without being overly stressful. "It was my first game there at what turned out to be a really great place to work. There were only five of us developing, so





his original conception. Elite didn't have much input, its only concern was getting something that partly filled the brief of the original game to the market as quickly as possible. Roy and Greg had a good understanding of each other, so translation into gameplay was done verbally between them. I would describe it as an iterative cycle; it would be developed, refined and redeveloped."

The experience of Gargoyles co-founders ensured smooth progress on their *Scooby-Doo* project, which Stuart describes as a product of evolution rather than planning. "Greg and Roy were exceptional at what they did. Even in those mid-development stages of the game it was already shaping up to be highly playable. A lot of the design had already taken place. However, we never worked to a tightly annotated form, preferring a more free-form type of development – we used to play it constantly and adapt many times."

As well as experience, Roy Carter had accumulated a library of adaptable routines during his years of coding games. Mark explains how these sped up *Scooby-Doo's* development. "We used Amstrad PCW's to do most of the development, using a CP/M compiler and serial interface to download directly to the Speccy. Very little was developed

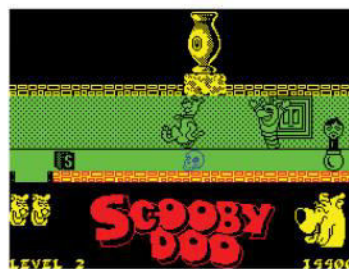


from scratch. All the source code from the previous games was hanging around so it was just a case of copying and pasting a lot of the time; we used quite sophisticated text editors."

The processes used to create the art for *Scooby-Doo* were equally well established with Stuart Cox favouring digital over analogue tools. "We had an in-house package we called 'Bin Image' that I used and a Spectrum Melbourne House art program for [the] loading screen. Graph paper was used sometimes; Greg favoured that method while I usually just pushed and pulled at

pixels until they looked right. It's hard to imagine nowadays that you could only have two colours in any one area – on the Spectrum, at least – and the resolutions were very low in those days. Greg had fleshed out a large number of the basic *Scooby-Doo* visuals already, and I was tasked with continuing that work and converting the graphics to the Amstrad, creating stuff like loading screens, title screens, side bar images, fonts, and so on."

In order to make best use of available memory, Greg and Stuart cleverly



» Skulls aren't deadly, but they do require Scooby to jump over them to make progress.



» *Scooby-Doo* has eight levels, which loop providing Scooby doesn't fall down on the job!

“The ambitions for Scooby were enormous. Even though it would sell because of the licence, I wanted it to be a great game in its own right”

Elite's Richard Wilcox

we were a very close-knit team. I was 17 and working in the games industry. What wasn't to love? I joined the company right in the middle of *Scooby-Doo*, but even before Gargoyles, I'd obviously seen the PR, adverts from Elite. I wasn't at the company when the deal was struck for us to take over the creation of *Scooby*, so can't really comment on that part, but certainly I didn't feel any pressure from the 'gravity' of the licence. Obviously it was a famous name, but licensing in the industry was new in those days. We did have to turn it around quickly though."

In order to speedily satisfy the demand created by Elite's project, coder Mark Haden worked with Gargoyles co-founder Roy Carter to adapt designs drafted by Roy's partner Greg Folis into on-screen gameplay. "We were told to develop something quickly for Elite. I was helping Roy to code the Spectrum version and in charge of the Amstrad conversion. Greg did all the game design, [it] remained unchanged from

CONVERSION CAPERS

How the other versions of *Scooby-Doo* compare



AMSTRAD

■ Although very slightly slower than the original, the Amstrad version of *Scooby-Doo* delivers better sound effects and a more colourful cast of characters. This allows Scooby and his foes to better stand out against their backgrounds, which makes responding to threats that much easier. Otherwise, the Amstrad CPC *Scooby* plays exactly like the Spectrum game it's based on.



C64

■ The more muted colours and blocky characters of the C64 *Scooby-Doo* are understandable given the system's differing hardware set-up, but its stripped-back gameplay is less so. C64 *Scooby* has four levels versus eight in the original, and there aren't any ground or overhead hazards. It does play a decent rendition of the *Scooby-Doo* theme tune, however.



C16/PLUS/4

■ Designed for the minimal memory of the Commodore 16 rather than the Plus/4's more accommodating RAM, this dual-platform port discards more of the original's gameplay than the C64 version and has less colourful, less defined levels and graphics than C64 *Scooby-Doo*. It just about captures the spirit of the original, but a Plus/4-specific port would have felt less diminished.

CRACKING COMPUTER CARTOONS

More great cartoon-based games

MICKY MOUSE

■ Gremlin Graphics' stylish platformer sees Mickey vertically assaulting four towers of a haunted castle dispatching ghosts and ogres with a water pistol and rubber mallet. Certain castle levels provide exits to mini-games, which have to be aced in order to exorcise each tower.

ATOM ANT

■ An obscure game based on an obscure licence, *Atom Ant* shares much in common with *Bomb Jack* whilst playing nothing like it. The objective is to collect and defuse bombs from outside vertically-scrolling buildings while avoiding hazards and accumulating power-ups.

YOGI'S GREAT ESCAPE

■ Seemingly short on gameplay on first inspection, prolonged play soon reveals *Yogi's Great Escape* to be a pure platformer. There are collectibles, but they don't affect your progress, which frees you to focus on timing, judging spaces between platforms and avoiding hazards.

SCOOBY AND SCRAPPY-DOO

■ In many ways this is Hi-Tec's spiritual successor to *Yogi*, although *Scrappy-Doo* offers more sophisticated visuals. The main gameplay tweaks are that Scrappy can defend himself with a short-range jab and collect Scooby Snacks to gain extra lives.

THE JETSONS

■ Unusually for a Hi-Tec Hanna-Barbera title, *The Jetsons* is an arcade adventure rather than a shooter, brawler or platformer. The game's focus is on logistical puzzles rather than cryptic ones, and controlling different Jetsons per level ensures that the game stays fresh while avoiding frustration.

POTSWORTH & CO

■ One of the best Hanna-Barbera games is adapted from one of its least-remembered shows. *Potsworth* takes influences from console platformers and it requires you to guide the cartoon's heroes through five sprawling stages in order to find an array lost objects.



» A monstrous foe descends to a lower level, but Scooby is prepared for his assault.



» Boxes marked 'S' are Scooby Snacks, collecting them provides Scoob with extra lives.



» Mad scientists have imprisoned Velma in a jar, but Scooby is seconds from freeing her.

» After rescuing his friends, Scooby has to round up the scientists who kidnapped them.



» Scooby spies Shaggy trapped behind a wall and must backtrack in order to free him.



» Our canine hero pauses to take down a bouncing oddity before apprehending a mad scientist.

► recycled some of *Scooby-Doo's* graphics. Stuart was also tasked with translating Greg's graph paper level designs into hexadecimal code. "We did a lot of tricks to minimise the memory usage. I remember working on the suit of armour on the background walls – it is only one half, with the other half 'mirror-generated' by the code. We had to be clever with graphics and would often design them in such a way that we could use them in other areas. All level design was done by hand, in the traditional way. I think they were loosely mapped out on paper beforehand; this would have been Greg so it is likely. I also remember working out hex values [for] the map creation – line by line."

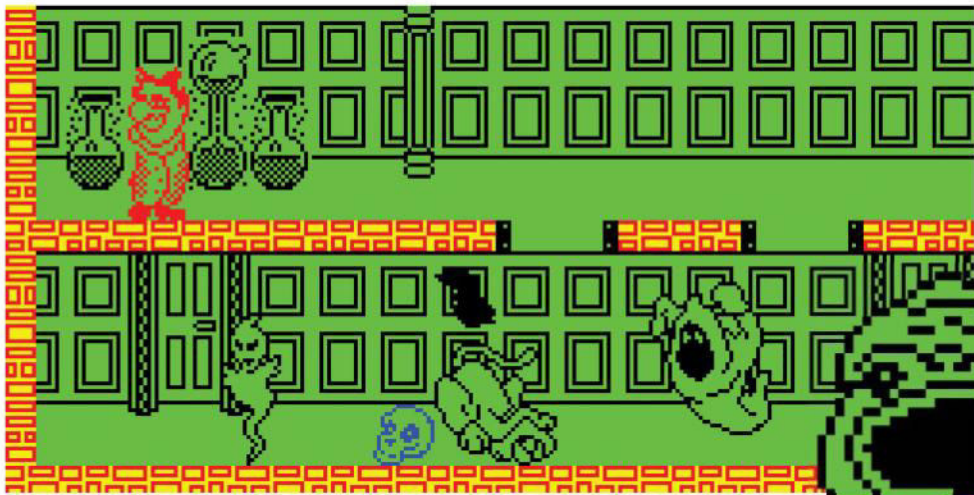
On the format and genre chosen for *Scooby-Doo*, Stuart cites familiarity and expediency as guiding factors. He puts the game's multi-directional foes and static combat down to an early decision to implement arcade-

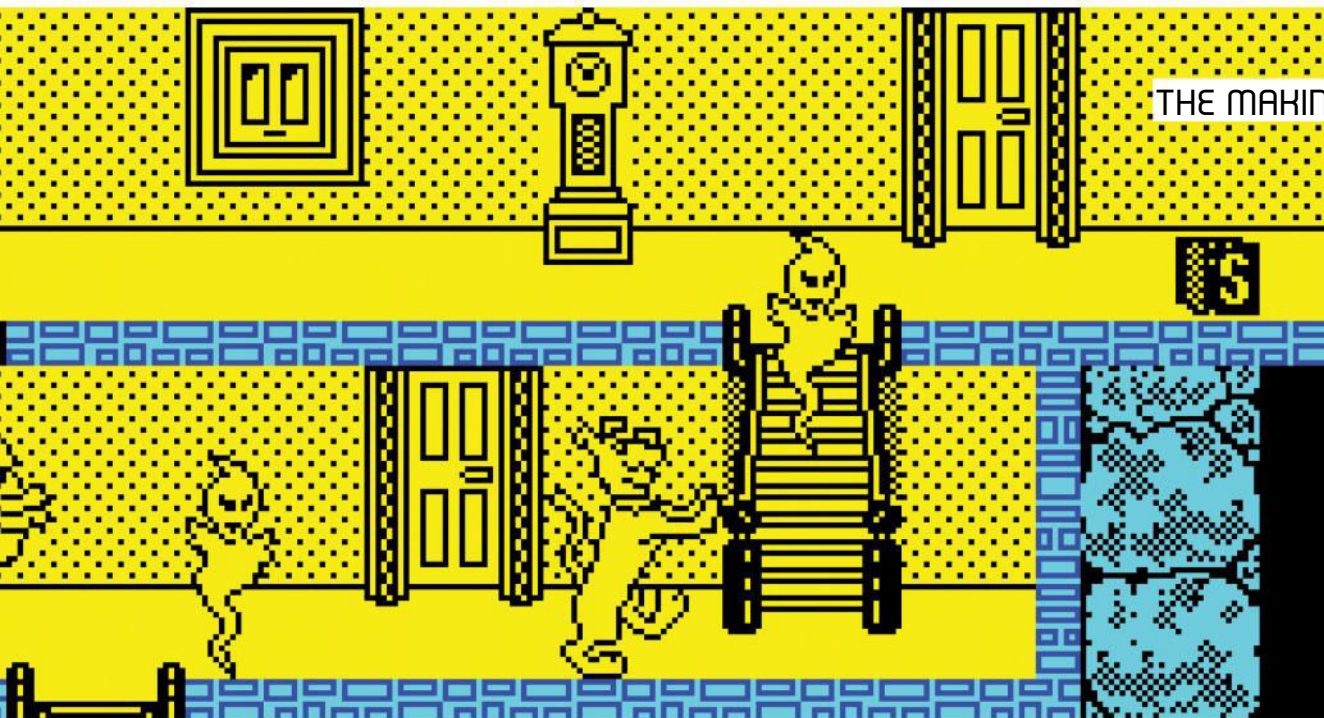
hard gameplay. "There were other games around at the time that had that side-on look; I'd guess that Greg and Roy would have gone for that design for good reason. We had little time to develop it so making an adventure game would have been out of the question. The game was meant to be frantic, so danger from all directions was intended. It was meant to be an all-out arcade game. The 'standing still' aspect was there from day one; I certainly don't remember ever being able to fight while on the move."

One of *Scooby-Doo's* more interesting mechanics was created by employing split-screen stages, which signposted dangers in upper levels. By contrast, Scooby's opponents would attack from both sides at close-quarters without warning, which, as Stuart reveals, was entirely intentional. "The sneak-peek aspect was a really nice feature; it added an extra dimension, it allowed for forward planning and strategy. The frantic gameplay was all about putting the player right on the edge of collapse."

“The game was meant to be frantic, so danger from all directions was intended. It was meant to be an all-out arcade game”

Gargoyles Stuart Cox





The seemingly impossible situation the player was in and then surviving it gave great satisfaction.... or a smashed TV screen in some cases I am sure!"

The difficulty of Gargyle's *Scooby-Doo* was gauged by Mark, who playtested the game before it was shown to Elite for approval. "The feedback did come from either myself or Roy. We didn't think it was difficult. I was the major game tester, so maybe I just played too much! Developing on the Speccy was quite quick with a good library of routines on hand; the whole start to finish took around 12 weeks. Gargyle was paid a fixed sum to get something to market that Elite was happy with, so commercially just delivering was considered a success."

The reception of Gargyle's *Scooby-Doo* was uniformly good despite comments that the game didn't play like *Dragon's Lair* as had been advertised. "I think the criticism was fair; it was never going to fulfil the hype generated by Elite," Mark acknowledges. Stuart agrees and explains why the game was successful anyway: "There was always going to be a bit of a story around *Scooby-Doo* because of Elite's failed start, but it really was a fun arcade game. It also looked like the cartoon, so I was pretty sure that anyone playing it would enjoy it." Elite artist Jon Harrison offers a balanced assessment of the game, "I won't deny it hurt a little as the game that came out was so simple – but it came out, so fair play to the guys at Gargyle."

As well as the original, Gargyle also developed the Amstrad version of *Scooby-Doo*, which as Mark points out was a process of taking the rough with the smooth. "The worst case with porting Speccy games to the Amstrad was the screen

code, 32vs40 columns, and the fact updating was slower because of the increased size of the screen RAM. [But] you could do some quite nice masking on the Amstrad that you couldn't do on the Speccy."

A C64 conversion and a dual-system port for the C16 and Plus/4 followed, but Stuart credits these versions to other developers. "We didn't create the C16 or Plus/4 conversion; I think Elite contracted that out to someone else. I would guess we'd have given them access to all the graphics, though. I'm pretty sure we didn't do the C64 version either."

Reflecting on *Scooby-Doo* now, Mark Haden offers an honest appraisal of the platformer. "It's a good game; it's a bit 'samey' but all development was done for the Speccy and there's only so much possible in 48K!"



SCOOPY-DOO AND THE ATTIC MYSTERY!

Could Elite's interactive Scooby cartoon finally get released?

Like all classic *Scooby-Doo* cartoons, the story of Elite's cancelled *Scooby* game ends with a revelation. The ambitious project may have stalled decades ago, but project leader Richard Wilcox feels the idea could be kickstarted – especially since artist Jon Harrison has kept all his work for the game. "I think all the Microdrives do still work," Jon reveals. "I kept loads. My wife says I'm a hoarder – I call it free loft insulation! I don't have a Microdrive anymore, unfortunately – but I would like to get hold of one just to see the content again." Of course, having the assets to resurrect the project is one thing, but there's also the small matter of securing the rights to *Scooby-Doo* and finding a publisher. Could Elite's Steve Wilcox be the perfect man for both jobs? Well he's more focused on promoting Gargyle's *Scooby-Doo* at present, but he at least seems open to the idea. "You can play Gargyle's version of *Scooby-Doo* on modern devices with the recently launched Recreated ZX Spectrum," Steve explains. "Though we do still hanker after a conclusion to the ambitious version that Rich, Andy and co worked on ... perhaps they'll get it crowdfunded."

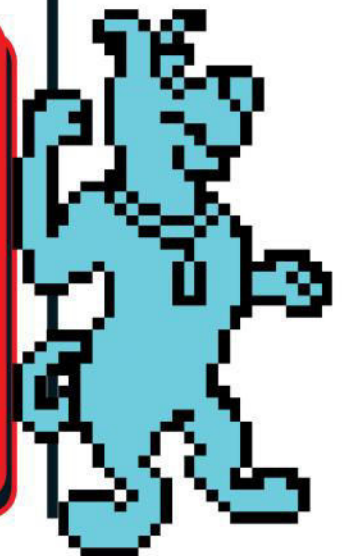
» Good timing is essential to keeping *Scooby* safe from foes that attack in numbers.



» Stuart Cox runs his own IT business and has recently started getting into retro gaming.



» Mark Haden operates a bespoke software firm developing high quality plug-ins.



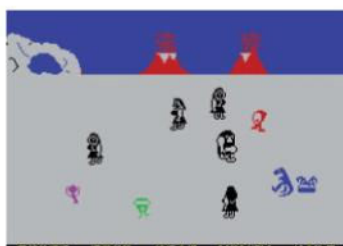


IMAGINE SOFTWARE



**A FAIRY TALE
BEGINNING
THAT ALL
ENDED IN
TEARS. WHO
COULD HAVE
IMAGINED IT?**





Among the whiz-kid software houses from the halcyon days of 8-bit home computing was the popular Spectrum developer Imagine Software. It lived fast and died young, spectacularly going bust right in front of a BBC TV film crew. Humble beginnings, pioneering, often ambitious computer games, debonair lifestyles and a dramatic climax, Imagine Software did it all inside of just 18 very short months

Mark Butler (a salesman) and Dave Lawson (a programmer) met at the increasingly successful Liverpool software company Bug Byte, which also nurtured the talents of *Manic Miner* creator Matthew Smith. Not long after beginning their tenure, a divergence from managerial policy prompted the pair to leave Bug Byte and start their own software house known as Imagine. Lawson had already put together a game that would be used as Imagine's launch title: an addictive space-based shooter for the Spectrum 16K and Commodore Vic 20 that was entitled *Arcadia*.

With the proceeds from the outstanding success of *Arcadia* and the subsequent Spectrum titles making headway on the good Imagine name, earnings rapidly skyrocketed, prompting the new industry hot-shots to relocate into professional premises, whilst taking on staff and pouring funding into new projects. Their former boss, Bruce Everiss was brought in as a general manager, allowing Lawson and Butler the time to indulge themselves in the flamboyant, playboy lifestyles that they had been building towards.

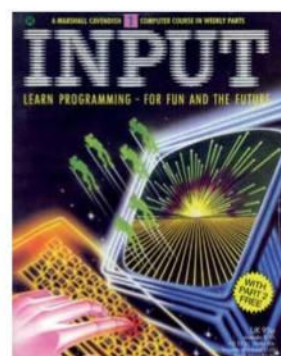
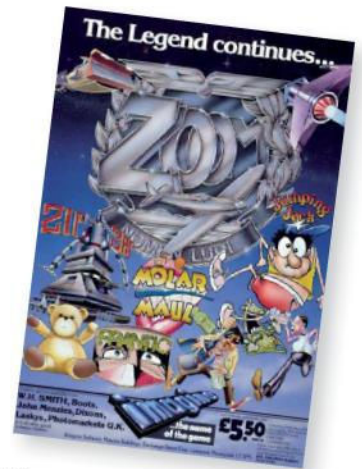
Back in the early days, many were the software developers that easily entered the market due to their technical expertise, but quickly suffered from a lack of business and marketing proficiency; not unlike the tornado of 'dot com' companies

in recent years. Imagine, however, did not struggle with the task of spreading its good word, and deftly, if occasionally unscrupulously, played the media game to win.

A teenage employee who had proven himself as somewhat of a programming prodigy had taken an in-house job at Imagine and was the subject of an ingenious marketing ploy to increase the public profile of his impetuous employers. His name was Eugene Evans, and 'somehow' the tabloids got hold of his remarkable success story.

The Daily Star carried the headline '£35,000 WHIZ KID'; referring to rumours that Evans was on such a salary at Imagine when only 16-years-old. It was suggested that he already owned a flashy sports car despite being too young to even drive it. This entire media buzz was a ruse that was designed to improve Imagine's standing in the software developers' community and ease any concerns that distributors might have about dealing with a group of such fledgling programmers.

And its unconventional marketing strategies didn't stop there. After the gaping void in the availability of computer games in 1982, developers were bustling and ready for the following holiday season. 1983 was set to see the most savage competition the UK games market had ever seen, and Imagine was determined to come out of it smelling of green.



IN (PUT) FLAGRANTE

Another potentially lucrative deal with publishers Marshall Cavendish also caused perturbing chest pains for the increasingly troubled company. Imagine had taken a £200,000 advance for supplying games to accompany its new computer-based partworks publication, *Input*.

The deal was for fortnightly multi-format cover tapes containing computer games, but Imagine was late in delivering the reportedly substandard goods. Marshall Cavendish demanded that its advance payment be returned, which left a gaping hole in Imagine's already Swiss-cheese finances. A statement by Imagine in Sinclair User stated that Marshall Cavendish had requested 'average' games, while the ones supplied were just too good, so the deal was called off!



In brief: Retro Gamer recounts the playboy lifestyle of the ill-fated, dynamic, renowned Liverpool software house, Imagine, and its spectacular collapse right in front of a TV film crew. Formed by Mark Butler and Dave Lawson (above), Imagine appeared to have it all. As time progressed, the arrogance and extravagant lifestyles of its two co-founders cost the company dearly and it eventually closed its doors within two years of the company forming. Its story remains a valuable lesson for software companies the world over.



IMAGINE SOFTWARE

NOT SO JOLLY

In an attempt to reduce its burdens, marketing rights to Imagine's back catalogue were sold to London based publishers, Beau Jolly, which then distributed the newly acquired titles through Mastertronic's budget range and in compilations. In an interview for *Crash* magazine, Beau Jolly's Managing Director, Colin Ashby, admitted to not being very happy with deal.

He was also under the impression that the agreement included investment in new developments, most notably, the mega games.

Dave Lawson and Ian Hetherington had been putting together a lifeboat for themselves in the shape of a new company called Finchspeer, however, that was concentrating on completing the mega games and putting them out for the forthcoming Sinclair QL computer. These were developments insinuated to be part of Imagine's resuscitation deal with Beau Jolly, but apparently that was never the intention



» One of the compilations Beau Jolly managed to release after buying up some failing Imagine property.



» It might be ostentatious, but the golden Alchemist tape is a collectors dream.

FINEST HOUR ALCHEMIST

An enthralling blend of action, adventure and role-playing that not only captured the... well, imagination of the players, but provided an inspiring showcase of the Spectrum's abilities for the generations that followed. A special edition ostentatious 'gold' cassette was even released, which is well worth hunting down on eBay.

MEGA GAMES, MEGA PROBLEMS

In an unprincipled attempt to stymie rival developers in the run up to Christmas '83, Imagine booked up all the cassette duplication time at Kiltale, the largest tape duplicator for the software industry at the time. Since games stayed in development right up until the eleventh hour, it would be impossible for Imagine's rivals to make the Christmas rush. This was an ingenious idea that hinged on one minor point: for the conspiracy to pay off, Imagine had to achieve unprecedented sales during, and after, Christmas 1983. This was just in time for the global software industry to begin crumbling, and Imagine was forced to hire an entire warehouse to store all its unsold cassettes.

Whether or not Imagine's ploy to ground rival house's duplication requirements was successful is difficult to say. The boom was far greater than expected, with literally hundreds of different software titles flooding the shelves, causing serious concerns that despite the massive sales figures, profit was spread so thinly that many software developers were unlikely to survive the winter.

By the time the Imagine team was established and the plush offices stocked from floor to ceiling with the highest of high-tech, it was time for the Lawson and Butler Show to begin work on the masterpiece they had envisioned from day one. They believed that the limits of the cassette-based systems had been reached, and the only way forward was in the shape of their 'mega game' concept. The launch titles, *Psychopase* and *Bandersnatch*, would be vastly superior games to anything that had come before as they would be supported by additional hardware packaged with the game. On average, an 8-bit computer game at the time cost around £7, while the

mega games were set to retail between £30 and £40, assuming Imagine could afford to order the massive quantities from the Far East required to get the manufacturing costs down. Coupled with the extended software development times and additional manpower necessary to get the two proposed projects off the ground, the software hot shots were going to need some serious financing.

In 1983, the BBC began filming a series of programmes called 'Commercial Breaks', the new documentary was to follow the trials and tribulations faced by various companies and individuals that were trying to introduce new products to the high street. One of the BBC's concepts was to closely examine the burgeoning software industry, and Imagine was picked out as suitable candidates for the cameras to stalk.

At first, Imagine's management team were more than a little reluctant to allow the film crew into their studio, saying there were far too many sensitive projects under development to allow filming. However, once it was discovered that Ocean was also taking part in the program, Imagine's vanity won through and it agreed to take part. Dave Lawson saw it as the opportunity to record the birth of the next-generation of computer games for posterity, and indeed it would

"BY THE TIME THE IMAGINE TEAM WAS ESTABLISHED AND THE PLUSH OFFICES STOCKED FROM FLOOR TO CEILING WITH THE HIGHEST OF HIGH-TECH, IT WAS TIME FOR THE LAWSON AND BUTLER SHOW TO BEGIN WORK ON THE MASTERPIECE THEY HAD ENVISIONED SINCE DAY ONE"

capture a unique event in the life of the British software industry, though it was not quite the one Lawson might have hoped for.

FINANCIAL ALCHEMY

Imagine's tape replication ploy certainly didn't pan out as it had hoped and the thousands upon thousands of extra copies it had ordered to deliberately congest the duplicators now had to be shelved – and money was rapidly running out.

Imagine was already beginning to topple behind the scenes, even while the BBC camera crew was being installed and opening shots of plush offices swollen with expensive hardware and management arriving for work in lavish cars were being filmed. An incident included in the BBC2 program showed a board meeting discussing the slow progress of the mega games and ways to keep the distributors on side with teaser advertisements, when an eagerly anticipated phone call is snatched up by the apprehensive Financial Director.

He had apparently been waiting for a call regarding the £2 million investment capital needed to move the over-hyped mega games forward. The sunken look on his face as he dropped the receiver back onto the phone gave a clear indication to everyone as to the

GAMES REVIEWS



ARCADIA

IMAGINE/INDESCOMP (1982)

» Written by Dave Lawson himself, *Arcadia* formed the foundations on which Imagine was built. An addictive, fast-paced *Space Invaders* clone (featuring the evil Atarian Empire) was just what the home computing scene needed. Anyone who had 'ummed' and 'ahhed' about buying a computer was reassured that they'd made the right choice. The Spectrum and the Vic 20 became serious contenders overnight, all thanks to Imagine. **85%**



AH, DIDDUMS

IMAGINE (1983)

» *Ah, Diddums* was a darkly surreal game. You, a big fluffy teddy bear, must escape from the toy box to comfort a crying baby. Should the baby be silenced, however, Mother will appear to turn off the lights, so the rest of the toys (who don't like the dark) are determined to stop teddy from escaping. All in all this was a pretty good game, with some impressive graphics and plenty of sound. **73%**



SCHIZOIDS

IMAGINE (1983)

» Touted as a '3D breathtaking visual experience', *Schizoids* presents an initially impressive visage as the geometric vectors of space debris spin smoothly around the black hole at the centre of the screen. The slick 3D graphics, however, were small compensation for the irritating control of the 'space-dozers' that you had to use to attempt to move garbage into the black hole. It was absolutely rubbish. **45%**



STONKERS

IMAGINE (1983)

» Put together by John 'Grandad' Gibson, *Stonkers* was a war strategy game without all the finicky scenario setups that ate up the gameplay of many other tactic based games; it got right down to the good stuff. It appealed to veterans of the strategy genre, while the intense, non-stop action of the battles brings the game close to being an action title, making it equally accessible to fight junkies like us. **84%**

nature of the call, and as the meeting drew to a close, he stressed that no more financial commitments were to be placed without his express permission.

Up until this point, the film had concentrated on Imagine's impressive vision and doubly impressive public profile, reiterating the tabloid stories of millionaire teenager programmers and presenting action scenes of the Imagine motorbike team speeding around the Isle of Man. The sudden and unexpected change of direction depicting the company as a brave face on an extremely tenuous situation perfectly exemplified its shifting fortunes.

The meeting scene was interspersed with views of a representative from Kiltale, the cassette duplicators Imagine had booked up for the Christmas period, anxiously pacing the lush carpet in reception, waiting to collect the £50,000 owed for the stranglehold play...

THE MEGA-GAME'S UP

As its difficulties compounded, Imagine suddenly caused an uproar by drastically reducing the retail price of all their games, including new releases, to £3.95; meaning that many retailers who were still holding vast unused stocks of Imagine titles were going to lose a considerable investment. The official line on the price drop was that Imagine was enjoying such success that it was able to return some of its profits to its loyal customers, when in fact it was desperate to shift as much of its inactive inventory as possible to pay off some of its escalating debts.

What Imagine wasn't prepared for was the abrupt and very public admonishment from across the industry. Other software houses immediately put out statements insisting they would not be following suit as the new Imagine price tag was unrealistic and could

only lead to second-rate products, while the Guild of Software Houses told the press that the move was potentially damaging to the industry. Imagine only took notice when threats from high street retailers to cease stocking its products forced the desperate developers to about turn on its price revision only two weeks after the initial announcement; which cost an equal amount of credibility as it did quick sales.

In retrospect, this drastic marketing tactic was the death knell for Imagine. One magazine that had carried a lot of Imagine's adverts was Crash, which, whilst remaining truthful, pulled no punches in reporting the goings on that lead to its outstanding payments, reportedly receiving more than a couple of warnings not to print anything pejorative. Naturally, those warnings were included in Crash's reports!

Neither Crash, Kiltale nor any of the other creditors owed money had any success in contacting the upper echelons of Imagine other than a very despondent, antagonised Bruce Everiss, who was not a signatory and therefore unable to write any cheques. He was quoted in a Crash article as saying that he had looked through the company's finance records when the directors had disappeared and found there had never been a VAT return or any kind of financial control at all. His final appearance on the BBC2 documentary is of him showing the crew around an inactive, almost ransacked office where workers were watching 'American Werewolf in London' or having fire extinguisher fights to pass the time. According to his Crash interview, "...the company is up shit street."

Then, right in front of the BBC cameras, matters came to a head. Dave Lawson and Ian Hetherington (the Financial Director)

abruptly left for America seeking venture capital to save Imagine (although it was more likely a trip to hunt for investors for their new enterprise, Finchspeer) when Cornhill Publications and VNU Business Press simultaneously petitioned the High Court to have Imagine wound up for non-payment of debts. These petitions went unopposed, and as the BBC camera crew and several Imagine staff returned from their lunch on 29 June 1984, they found the doors to the company locked as agents of the bailiff moved in. The BBC even had difficulty reclaiming two of the cameras that were inside when the company was occupied.

Mark Butler returned from racing his Imagine sponsored motorbike around the TT races covered in bandages after (rather ironically) crashing at the exact same time as his company collapsed, watching stunned and distraught as his beloved Ferrari was loaded onto the back of the repo-man's lorry.

In less than two years of trading, the whirlwind life of the Imagine software house came to a dramatic and spectacular end.

THE NAME OF THE GAME

The banner of Imagine, along with much of its workforce, was resurrected by David Ward of Ocean when he bought the name and much of the equipment from the liquidators following the winding up of the company.

Despite its self-inflicted quandaries, Imagine will be remembered for providing some truly spectacular titles in its short lifespan, rather than the unfortunate happenings that surrounded its existence.

The label, and much of the talent that was fostered, went on to enjoy prolific careers, ensuring that Imagine's legacy would be more than just scandal, avarice and misfortune.

BAD REP

The mounting uncertainty of the mega game's future was depicted by a brief outing with Imagine's sales rep in the BBC2 *Commercial Breaks* program, as she met with an apprehensive distributor regarding a vast quantity of unsold games. In true Imagine style, rather than tackle the problems at hand, she brushed them aside to concentrate on pushing the next big sale: the mega game she had apparently been promising the distributor for some time. Her abortive attempts to explain the revolutionary aspects of these new titles – that she had never even seen – clearly put the distributor on edge, particularly when she let slip that the cost would be nearly seven times that of the average computer game. He was polite for the cameras, but noticeably kept her at arms length.



ALCHEMIST

IMAGINE (1983)

» *Alchemist* was undoubtedly Imagine's crowning achievement. In an attempt to destroy an evil warlock, the Alchemist must piece together a scroll that contains the spell of destruction. His deft use of metamorphosis and spell casting allowed him to take on his enemies threatening domain. Large, well-animated sprites and terrific backdrops made *Alchemist* a true slice of fried gold. **90%**



BC BILL

IMAGINE (1984)

» *BC Bill* tellingly smacked of a game hacked together during the death throes of the company. The caveman wandered about the single screen coshing prospective cave-wives over the head and dragging them back to his cave for some Palaeolithic pleasures. Kids then started appearing to provide food for the passing dinosaurs and antagonism for the hirsute Neanderthal. The Flintstones was never this boring. **50%**



MOLAR MAUL

IMAGINE (1983)

» A more enjoyable game than it deserved to be, probably due to being laced with the outrageously imaginative gameplay and rakish humour the Imagine team was imbued with. As a toothbrush, you had to patrol the inside of a mouth fighting off the evil DK's as they attempt to ruin the enamel. Unusual, and not a little bit icky, *Molar Maul* just managed to tip the scale towards success. **60%**



JUMPING JACK

IMAGINE (1983)

» A game that wouldn't look out of place on a Atari 2600, this was a very basic, yet strangely addictive idea that almost certainly started life originally as a Donkey Kong clone. The basic graphics left all the enjoyment down to gameplay, which involved ascending the levels by jumping through holes as they pass above Jack's head. Enjoyable for sure, but overall not one of Imagine's better titles. **66%**



AVOID LIKE THE PLAGUE

BC BILL

Quite clearly, the fate of Imagine was known to the despondent staff as they casually threw together an unfitting epitaph that would have been a rubbish handheld LCD game, never mind a waste of valuable cassette tape.

THE CLASSIC GAME



Flower-picking, warring wizards and devastating incantations. Retro Gamer grabs its spell book, heads for the herb gardens and prepares for a battle to the death.



» Look out! it's your wayward brother. He'll fling spells at you if you dawdle, so move away as quickly as possible.

IN THE KNOW



- » **PUBLISHER:** BULLDOG (MASTERTRONIC)
- » **DEVELOPER:** BINARY DESIGN
- » **RELEASED:** 1987
- » **GENRE:** ACTION ADVENTURE
- » **EXPECT TO PAY:** A FEW QUID

Sometimes it's possible to spot a classic game from a mile off. Often critically acclaimed and filled with incredibly innovative ideas that practically jump out at you, its pedigree is there for all to see and admire and you can usually guarantee that it'll be popping up in classic game polls several years down the line. Other times though, despite initial high praise, a game can sometimes slip below the radar, only to be lost to all but the most ardent of gamers. The Pickford brothers' *Feud* is one such game.

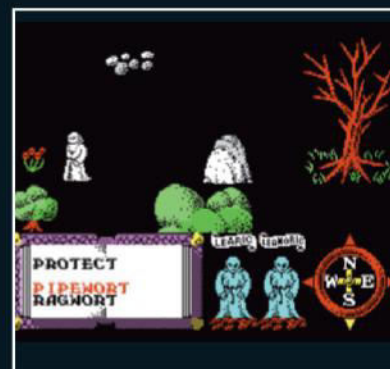
Often jokingly referred to by the Pickford brothers – Jon created the original design, while Ste worked on the visuals – as 'gaming's first deathmatch against a computer opponent', *Feud* remains a refreshingly enjoyable romp that has weathered the last 20 years exceptionally well and shows no sign of getting stale. It also came up with the idea of featuring sibling rivalry in a videogame long before Kojima got in on the act with *Metal Gear Solid's* Liquid and Solid Snake.

Unlike Kojima's siblings, the Pickfords' creations didn't have hi-tech weaponry, advanced combat training or computer skills to rely on; they simply resorted to good old-fashioned spellcraft to solve their problems. For you see, Learic and Leanoric were two rival warlocks with a hatred for each other that was so great even Noel and Liam Gallagher would blush.

Feud begins when the two warring brothers are at the end of their tethers, and finally realise that they're never going to be able to get along with each other. Therefore they decide that the only way to solve the issue is by competing in one last fight. This time though, instead of turning each other into animals or taking out their anger on the simple villagers they decide to fling spells until the vanquished brother is resting in the cold hard ground.

And thus begins one of the tensest gaming experiences ever created for an 8-bit micro (or 16-bit if you were lucky enough to own the Amiga version). What's interesting about *Feud* is that

while the two brothers had a variety of deadly spells at their disposal, they couldn't actually use them until they had acquired the correct ingredients (each of the 12 spells required two components). Therefore the early stages of *Feud* had you frantically searching the countryside for suitable herbs and roots that could be used to create the many potent spells



» Dozy villagers will often annoy you by getting in your way. Get revenge by turning them into zombies.



» The two figures to the right of your spellbook depict the current health of each wizard.

that were needed to defeat your evil brother Leanoric. Of course, gathering these resources was far from easy, mainly because the countryside the two brothers lived in was spread across 90 beautifully drawn screens and filled with some seriously devilish mazes to negotiate. Indeed, your first few plays normally ended with frustration, as you constantly found yourself walking into dead ends, a herb often lying just out of reach. Once you'd figured out *Feud's* clever layout however, progress became far easier and allowed you to focus on your next objective – staying out of your brother's way until you were ready to actually deal with the bugger.

And this is where the beauty of *Feud* truly shines – at least on the Amstrad and Spectrum versions – because while you were trying to gather plants like Cud Weed and Knap Weed (they make great lightning bolts don't you know) your brother was doing exactly the same thing. Yes *Feud* looked the biz with its bold cartoony visuals and stirring soundtrack, but what made the Pickfords' creation truly stand apart from other titles of the time was the fact that your brother Leanoric came across as a living, breathing player. This was no mean feat when you consider the limitations of the hardware. Therefore, while you were busy planning strategies and working your way through the mazelike countryside, your brother was doing exactly the same thing.

Fortunately a compass in the bottom-right corner of the screen would point out your brother's position in the game world, so you generally had a good idea where

IT WORKED SO WELL THAT THE BROTHERS ARE NOW PROMISING AN UPDATE, ALTHOUGH THEIR WEBSITE DOES STRESS THAT ITS FORMAT WILL BE A LITTLE DIFFERENT TO WHAT WE'RE SO ACCUSTOMED TO

the devious warlock would be hiding. Sooner or later though the need to reach certain locations – the herb garden for example featured a variety of useful herbs – in order to complete specific spells meant that the two rivals would eventually run into each other. And woe betide the foolish wizard who entered a battle with no spells available...

Fireballs, sprites and the aforementioned lightning bolts were just a few of the deadly offensive spells that both skilled wizards had access to and a successful hit with them considerably drained your energy (depicted by two on-screen wizards who would slowly sink into the ground). Freeze spells held your opponent in place, hopefully allowing you to use more dangerous incantations, while spells like Doppelganger, Protect and Invisible granted you with ways of deflecting Leanoric's continued attacks. What's interesting is that the more dangerous spells were often a lot harder to acquire, so *Feud* actually required a fair amount of strategy in order to defeat your annoying sibling. Did you simply keep close to home, (you have to return to your



» There are a wide variety of spells to be used in the game. Some will help you, but many will damage your opponent.



» You've found the Dragonsteeth, now all you need is the Mousetail and you can make your fireball.

hut and a huge cauldron in order to create spells) or did you stray further afield and risk stumbling into your brother and a potentially fearsome arsenal of spells? It's an interesting dilemma that worked perfectly, unless you owned a C64 (see boxout). In fact, it worked so well that the brothers are now promising an update, although their website does stress that its format will be a little different to what we've grown so accustomed to. Still, if it's half as good as the 1987 original we'll be first in line to buy it.

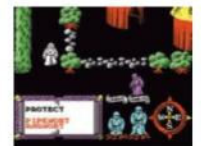


» He may look friendly but the owner of the herb garden will rob you of energy if you get too close to him.

PITY THE C64

Thanks to the introduction of the Pickford brothers' new website (www.zee-3.com) it's possible to find out why the C64 conversion was so different to the superior Amstrad and Spectrum outings. "John wasn't on the *Feud* team, he was just the guy who had come up with the game design," begins Ste Pickford. "So the C64 coder choose to ignore him. He didn't get the idea that there was a properly designed map for the game, even though it didn't scroll smoothly like other C64 games. The map was split into screen-sized pages. He decided to ignore the layout data for each screen's objects, which I'd prepared, and plonked trees and bushes around randomly on each screen.

As he had no map stored in memory he was unable to use the AI code for the enemy wizard, which was the heart of the game. So on the C64 only Leanoric's position on screen was tracked, not his position on a map. Once he walked off screen he would appear back on screen again after a random delay. And because of dodgy positioning, there were loads of sections where two screens didn't join up properly so you would walk into trees and walls as you flipped screens. Rubbish."



DEVELOPER HIGHLIGHTS

GLIDER RIDER
SYSTEMS: VARIOUS 8-BIT
YEAR: 1986

PLOK! (PICTURED)
SYSTEMS: SNES
YEAR: 1992

NAKED WAR
SYSTEMS: PC
YEAR: 2006



» RETRO REVIVAL

DYNAMITE DAN

TICK, TICK, TICK, BOOM!



- » PUBLISHER: MIRRORSOFT
- » RELEASED: 1985
- » GENRE: PLATFORM
- » FEATURED HARDWARE: SPECTRUM
- » EXPECT TO PAY: A FEW QUID



HISTORY

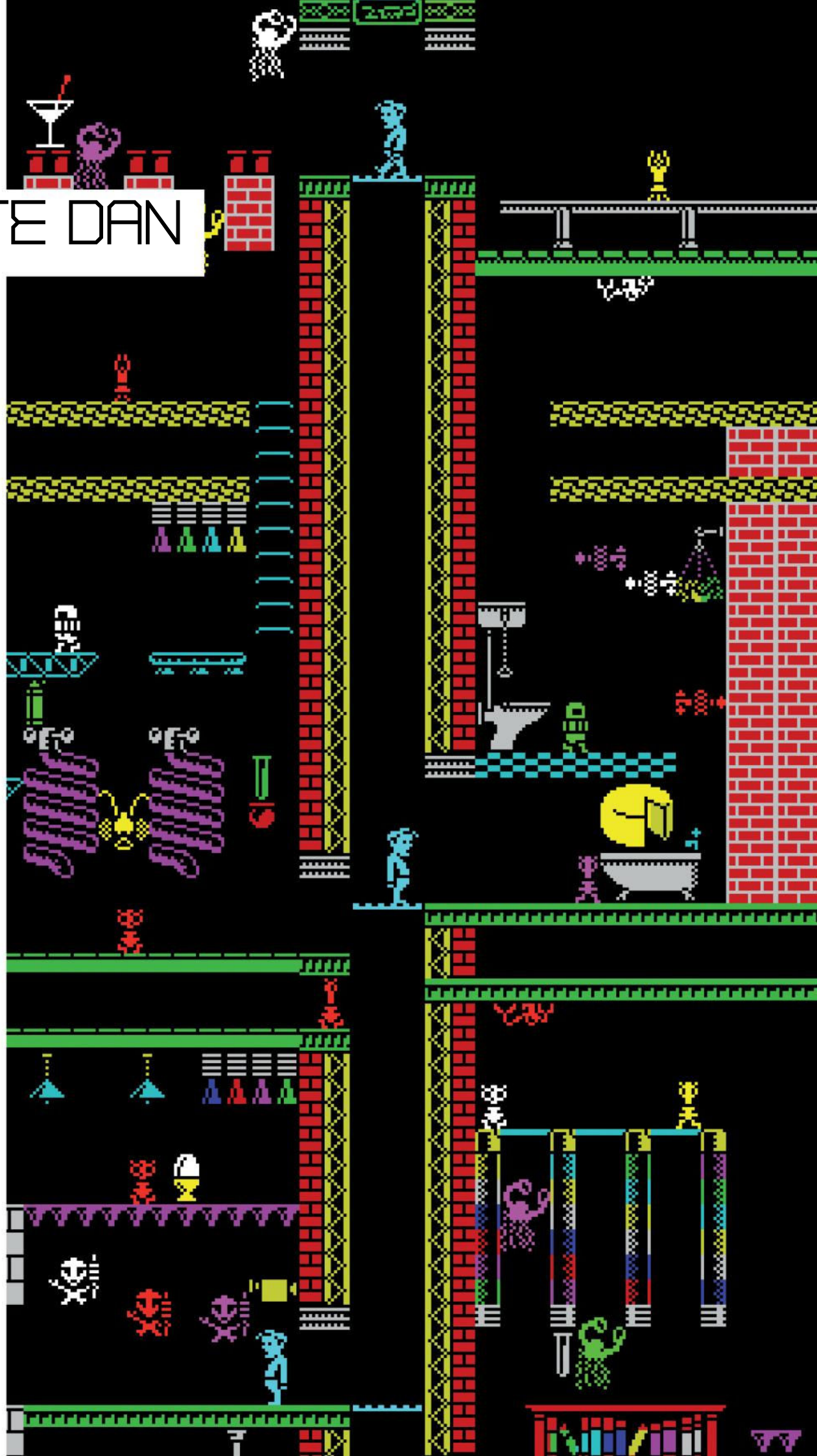
It's funny to think that when *Dynamite Dan* was released in 1985, UK gaming magazines were already predicting the death of the platform game.

The best of the breed was the previous year's *Jet Set Willy* – a squillion-selling hit from the alien mind of Matthew Smith – but the market had since stagnated thanks to dozens of cheapo clones attempting to replicate Smith's infernal code. The nadir was *Jet Set Willy II*, an embarrassing sequel that added some extra screens and bugged all else. Thank the good Lord then for *Dynamite Dan*, a platformer released at the same time as *Jet Set Willy II* that was a far worthier carrier of Miner Willy's mantle.

Like *Jet Set Willy*, the game takes place in a mansion inhabited by all manner of meanies. The typically irrelevant plot reveals that the dastardly Dr Blitzen, an evil genius with designs on world domination, owns the mansion. It's up to top secret agent Dan to pilfer the plans to a deadly ray-gun from Blitzen's safe; to gain access he must find eight sticks of dynamite scattered around the house. Blitzen's retreat is massive, but there's a handy lift, which Dan can use to access each floor, and a wooden raft that transports him through the mansion's sewer system. The player is given ten lives to get the job done, but it's not nearly enough.

It's easy to get excited about *Dynamite Dan*, even when revisiting it now. The graphics are highly detailed, smoothly animated and super colourful, with barely a hint of the dreaded colour clash. Each screen is alive and it makes you wonder how programmer Rod Bowkett managed to cram so much stuff into the Speccy's tiny brain. It's a very tight, very smart piece of programming: a product from that magic period when developers were finally beginning to master Sir Clive's machine.

It would be wrong to suggest that the game saved the platformer from an early death, but it reignited an ailing genre. *Dynamite Dan* lit the fuse in more ways than one.





on the trail of mire mare

MIRE MARE – the mythical Sabreman game that never saw the light of day. Some believe it exists; others claim to have actually played it. Martyn Carroll dons his pith helmet and boldly goes in search of the truth behind the most intriguing of retro tales



According to Rare's Leigh Loveday, Tim Stamper was bemused that anyone would want to see this cover art.

I picked up the trail to *Mire Mare* later than most. I played, and adored, nearly every Ultimate game on my old Spectrum, but I never managed to complete a single Sabreman adventure. I therefore didn't see the finish screens to Underwulde, Knight Lore or Pentagram, all of which mentioned the mysterious Mire Mare, so the promise of this new Sabreman game completely escaped me.

That changed when I first visited the official Rare website in the late Nineties. The site, put together by former *Your Sinclair* contributor Leigh Loveday, featured a lovely retro section that looked back to the firm's ACG/Ultimate days. And it included a 'Limbo' page where a few of the games that never made it were mentioned. Headlining this page was the fascinating story of *Mire Mare*. Leigh revealed that some work had been done on the game and that it was to have more in common with *Sabre Wulf*, Sabreman's debut, than the later isometric adventures: "The basic game design and cover art were both completed, but when the actual coding aspect became entangled in the chaos of the company's hectic career-peak schedule, it became

inevitable that *Mire Mare* would never see the light of day."

So that was that. There was no *Mire Mare*. All that remained was the A2-sized cover painting, which Leigh grabbed from Tim Stamper's personal artwork folder and scanned for inclusion on the website.

the revelation

The investigation would end right here were it not for an interview that appeared on the Ultimate Wulde fan site in 2002. Site owner Rob Uttley was contacted by someone who claimed to have worked for Ultimate in a marketing role and was willing to share some inside secrets. This was big news, as former Ultimate staff rarely went on record. Even bigger news was this anonymous person's revelations about *Mire Mare*.

"It does exist," he told Rob. "I have seen it, I have played it, and it was a corker!"

At this point, anyone with any interest in Ultimate would have

surely jumped for joy and kissed the dog-eared *Sabre Wulf* poster on their wall. The rumours were true – *Mire Mare* did exist. And, incredibly, it was playable! But why wouldn't Ultimate release such an impressive game if it was complete? It was because of US Gold, apparently.

It's well known that at the beginning of 1986, the Ultimate name and back catalogue were sold off to US Gold. According to this insider, *Mire Mare* was actually completed before *Gunfricht* – the last Ultimate game the Stampers worked on – but the pair wanted to hold it back as a "grand finale" before they left the Spectrum behind and moved over to the NES. However, the Stampers learnt that US Gold was more interested in whacking out the old Ultimate hits on the Kixx budget label than marketing new, full-price games. "This really upset the team," he revealed, "so when US Gold approached Chris and Tim asking where this planned *Mire Mare* title was, as they would like to put it out on the Kixx label, they were told that it was not finished – although it basically was."

This was riveting stuff. We now had a semi-plausible reason for why it was never released, and another reason to moan about US Gold. Surely it was just a matter of time before a copy of the game surfaced.

“ Why wouldn't Ultimate release such an impressive game if it was complete? ”

CORE 0065002
ATER



THE FOOTHILLS OF MOW

» If *Mire Mare* had been released, we're guessing – all right, hoping – it would look a little like this.



TRAIL OF MIRE MARE

MIRE MARE: an artist's impression

If *Mire Mare* had been released, what would it have looked like? Speculation is tricky as the only known fact is that it was to hark back to the top-down style of *Sabre Wulf*. Hopefully it would have retained the vibrant colours of *Sabreman*'s debut rather than a drab monochrome

display, and would have featured scrolling, instead of a flick screen approach. It's conceivable too that the gameplay would evolve from a simple collect-'em-up, into a more structured adventure with specific, usable objects and NPCs that may help or hinder *Sabreman*.

The title alludes to a swamp setting, and the cover art shows a fiery pit with what appears to be a phoenix in the flames, suggesting an environment that features both humid, tropical jungle and arid, volcanic scenery. Additional clues may possibly be found in Tim Stamper's 'Land of Ultimatum' map, which came with the *Collected Works* release. The first four *Sabreman* games are all referenced, and there's also a series of volcanoes, which must surely relate to *Mire Mare*. Surrounding these volcanoes are several named locations – Stone Hills, Dark Mountains and Mount Sol. Maybe these were to feature in *Mire Mare*?

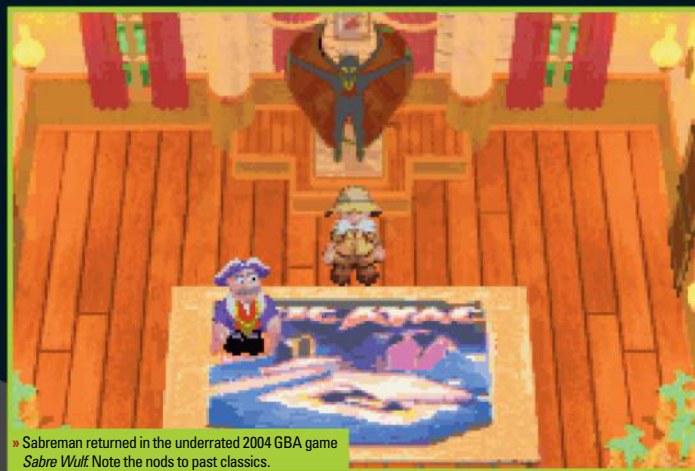
Based on this educated guesswork and speculation, graphics artist Jarrod Bentley (*Crystal Kingdom Dizzy*, *Turbo The Tortoise*, *Ghost Castle* games) has mocked up a screen showing how *Mire Mare* might have looked on the Spectrum...

In 2005, the same ex-employee spoke to Spectrum fanzine *ZX Shed*. Still under the guise of anonymity, he repeated most of the same claims, although this time he did say that the game looked like *Sabre Wulf*, tallying with what Leigh Loveday revealed years earlier. He also claimed something that simply didn't add up. Talking about *Solar Jetman*, he said that the game was being worked on when he left the company. And when did he leave Ultimate? Before the US Gold takeover, apparently, which meant that Ultimate would have been working on *Solar Jetman* prior to 1986. Yet *Solar Jetman* was actually developed for the NES by Zippo Games, and according to the Pickford brothers, work on the game didn't commence until mid-1989.

I decided to go back and re-read the Ultimate Wurldie interview to see if I could spot any other oddities. The first thing that stuck out was his assertion that "*Knight Lore* was completed and ready to ship out ten months before *Sabre Wulf*". It's a well-worn tale that *Knight Lore* was completed before *Sabre Wulf*, and *Knight Lore* was held back because Ultimate felt that it was so

ahead of everything else out there that it would hamper sales of *Sabre Wulf*. Tim Stamper himself claimed this in an interview in the March 1988 issue of *The Games Machine* magazine, yet evidence suggests that he may have been exaggerating to some extent. A few years back, former **RG** contributor Chris Wild poked around in the code of both games and discovered that *Sabre Wulf* uses more primitive coding routines in line with Ultimate's earlier releases, whereas *Knight Lore* employed more optimised techniques. In short, the code evolved. It doesn't make sense that Chris would revert back to develop the supposedly subsequent *Sabre Wulf*. What's more likely is that *Knight Lore* was in production and put on hold at some point to develop *Sabre Wulf*. The interviewee's claim that it was "ready to ship" ten months before *Sabre Wulf* is implausible. *Sabre Wulf* was released in June 1984 – ten months before then would be roughly the time when Ultimate was busy working on *Lunar Jetman* and *Atic Atac*.

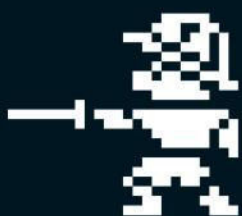
The other questionable answer came when Rob asked him about the memorable team photograph that appeared in the *Games Machine* article. The photo shows staff outside



» Sabreman returned in the underrated 2004 GBA game *Sabre Wulf*. Note the nods to past classics.

Rare's Twycross HQ, but the caption only gives full names for Chris, Tim and Carole Stamper – the rest are just listed by their first names. When naming the people featured, the insider quotes the magazine caption almost verbatim – and fails to fill in any of the missing surnames. You'd think that if he'd previously worked with some of these people he'd reveal their full names! That got me thinking – I wonder if any of the Ultimate staff remember him?

I needed his name, and this was given to me by the guys at *ZX Shed*.



“Getting in touch with ex-Ultimate staff isn't easy. Getting them to speak is even harder”



• Sabreman in Gandalf guise gets to grips with mystic runes in *Pentagram*.



• Mark Betteridge was responsible for the technically impressive but tough-as-nails *Cybern*.

mire mare secrets

While researching *Mire Mare*, a couple of interesting facts came to light about Mark Betteridge, the programmer who started at Ultimate as a teenager and eventually became Rare's studio director when the Stammers left the business in 2007. The first is that it was Mark, not Chris Stamper, who wrote the scrolling Filamation II engine that was used in *Nightshade* and *Gunfricht*. The second, more surprising fact is that Mark briefly went freelance during 1987 and wrote the brilliant Spectrum version of *Batty* for Elite under the pseudonym Mark Crane. His original version of the game, entitled *Wipe Out*, carries the credit KB.RAM – an anagram of MARK.B.



I also got hold of his email address and, in May 2008, sent him a quick message saying that I was looking for additional information about *Mire Mare*. At first he seemed slightly annoyed that I'd tracked him down, but then agreed to answer my questions. Unfortunately, he added nothing new and simply referred me back to the Ultimate Wurldie interview. But at least I now had his name.

Getting in touch with ex-Ultimate staff isn't easy. Getting them to speak is even harder. However, I managed to make contact with Huw Ward via the Friends Reunited website. At the time, Huw was Rare's head of testing, and he's been involved in QA roles since the early days when he was Ultimate's original game tester. He's one of the company's longest-serving employees, and he also happens to be Carole Stamper's brother. He's a very credible source.

Huw wasn't prepared to grant us a full interview, no doubt due to his links to the Stammers and his continued employment with Rare, but I was able to put this questionable marketing guy's name to him. His reply wasn't entirely surprising. He'd never heard of him, and revealed that Ultimate never employed anyone in what could be classed as a marketing role. And as for *Mire Mare*, Huw doesn't remember seeing a single graphic or line of code.

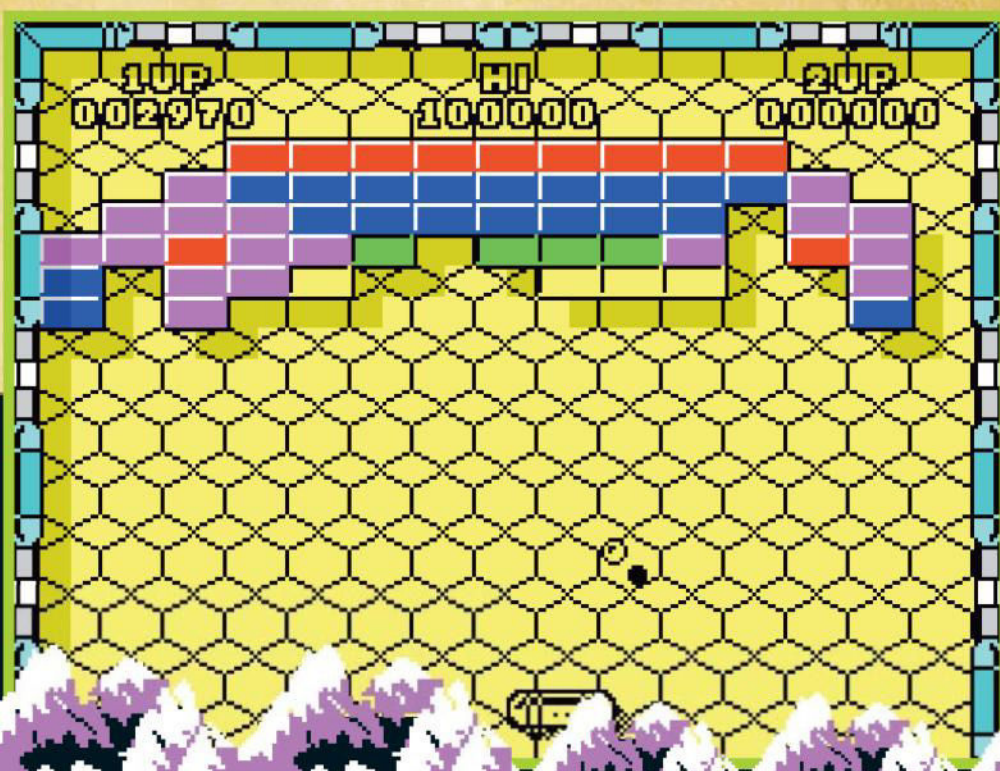
I later contacted Leigh Loveday, who still works at Rare, and

mentioned the guy's name and his claims. The Stammers had left Rare by this point so he wasn't able to ask them directly, but he quizzed some of the old boys at the company and they were all in agreement with Huw – no one remembered this guy or saw anything to support his claims regarding *Mire Mare*. The whole thing was clearly a hoax.

the resumption

Fast-forward to 2012 and unsurprisingly no new *Mire Mare* details have come to light. I'm positive that the claims of a playable game are untrue, but I'm still keen to discover specific details about the game's design – plot, location, objectives and so on – and determine whether any actual coding was done. The next step was to find out who might have worked on *Mire Mare*.

To focus my search, I needed to try to determine when the game would have been in development. The *Mire Mare* name was first revealed in 1984, yet Ultimate continued to release Spectrum games until 1987, *Bubbler* being the last. Thankfully, a brief news item in the June 1987 issue of *Sinclair User* dates it. "Ultimate still exists," went the text. "What with *Bubbler* being moderately OK, we now have top secret news of upcoming games. First up will be *Mire Mare*. Nobody at US Gold knows anything about it and Ultimate is, as usual, locked away in a bunker and



► In *Underwurld*, Sabremen had to deal with grumpy guardians blocking his path.



► *Underwurld* was Sabremen's next adventure after *Sabre Wulf*. It took the gameplay in brand new directions.



► *Knight Lore* was a further example of Ultimate's brilliance. It introduced filmation and was endlessly copied.



not talking to anybody. Right after *Mire Mare* there is the prospect of 'Jetpac brought up to date'."

So *Mire Mare* would have followed *Bubbler*. This seems feasible, as the finish screen to *Bubbler* promises a sequel, suggesting that the game wasn't intended to be Ultimate's Spectrum swansong. It would seem that whoever was responsible for *Bubbler* and the other post-Stamper Ultimate games – *Cyberun*, *Pentagram* and *Martianoids* – was probably involved with *Mire Mare*.

I emailed Leigh about the authorship of these games and he confirmed that in-house programmer Mark Betteridge definitely wrote *Cyberun*. The others were more uncertain, with the general consensus being that Mark and John Lathbury, one of the company's directors, were responsible. I was then reminded of an old email I'd received from former Rare community manager George Kelion, which listed Mark's selected softography. Among the NES and SNES titles was *Bubbler*. If Mark did *Cyberun* and *Bubbler*, maybe it was John behind *Pentagram* and *Martianoids*? One of them might know something.

Well, we can cross Mark off the list straight away, as he's already revealed in *RG* everything he knows about *Mire Mare*. "I don't think the game itself ever got very far," he said in issue 73. "It certainly wasn't completed. There was every intention of finishing and releasing it, but Ultimate's time on the 8-bit home

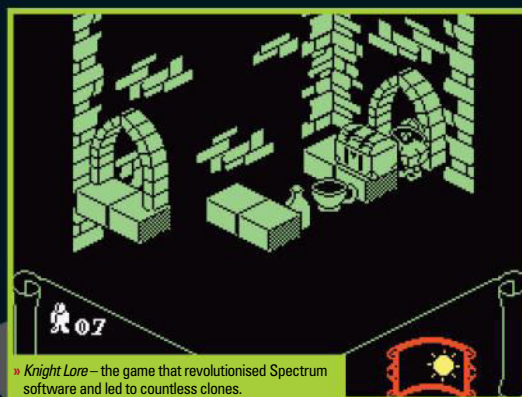
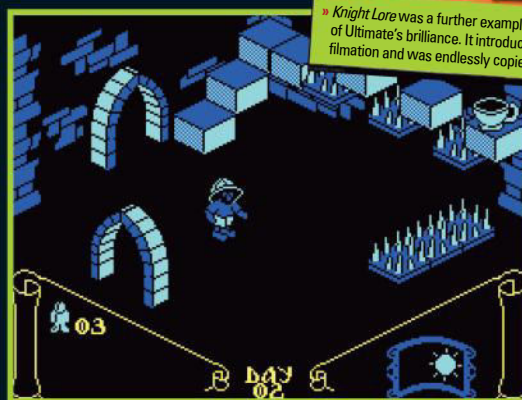
computers turned out to be limited before it morphed into Rare and changed direction."

That left John. Unfortunately he appeared to have left the company following the transition to Rare and then seemingly vanished. An online search revealed his likely home address, so I posted him a letter but received no reply.

I began to wonder if any other Ultimate/Rare employees had additional information. This brought me back to the *Games Machine* article and the people in that team photo. Our friend Mr Anonymous wasn't able to provide full names for all of the staff, but by checking their first names against the credits for Rare's early NES games I was able to quickly identify them. I then managed to speak with three of them: Dave Wise, Kevin Bayliss and Paul Byford.

Musician Dave had very little involvement with the home computer side of the business, saying: "I only worked on one Ultimate game, but I have no idea which one it was." Graphic artist Kevin was similarly assigned to Rare projects: "I wasn't really involved in Spectrum game development. I joined Rare in late 1987 and we were working on new NES projects. The name *Mire Mare* is definitely familiar, but I'm not sure what happened with that game."

Programmer Paul drew a blank too, although he did offer some fascinating information: "I can't help you with *Mire Mare*. I only ever worked for Rare. The



► *Knight Lore* – the game that revolutionised Spectrum software and led to countless clones.



► The *Knight Lore* completion screen points to *Mire Mare*. In retrospect – worst ending ever!

mysterious figures of gaming

Over the years, Retro Gamer has spoken to dozens of UK gaming people, but a few have remained defiantly distant. Here are just some of our most wanted interviewees...

Chris and Tim Stamper >

Wanted to discuss: *Everything Ultimate*

Ah, the supremely secretive and talented Stamper brothers. The pair have been interviewed at length before – memorably in *The Games Machine* in 1988, and in *Edge* ten years later – but most of these concentrated on Rare rather than the early Ultimate days. When they were both still at Rare, *RG* editor Darran bugged them so much that Chris eventually agreed to answer a few questions for the Spectrum Legends feature in issue 29. It was hoped that once they'd dispensed with the day-to-day running of Rare they'd be more open to interviews, but the exact opposite is true. Please, Messrs Stamper, kindly gift us an afternoon of your time!

< Greg Follis and Roy Carter

Wanted to discuss: *Gargoyle Games, Cuchulainn*

The talented twosome behind such hits as *Tir Na Nog*, *Light Force* and *Hydrofool* could often be found talking about their games in the Spectrum magazines. They seemed quite a pair, cracking jokes and ribbing each other. It's surprising, then, that neither seems at all interested in discussing Gargoyle these days. Emails have been sent, letters have been posted, calls have been made – and all have gone unanswered. What's particularly galling is that only Greg and Roy can reveal what really happened to the unreleased *Marsport* sequels and *Heavy On The Magick* expansions.

Paul Woakes >

Wanted to discuss: *Novagen, Mercenary*

As far as we're aware, the genius behind the *Mercenary* series has never been interviewed about his games – but he very nearly was. In the early days of *RG*, freelancer Andy Krouwel was in the process of writing an article about Novagen and was in contact with Paul. Andy even managed to secure permission to cover-mount the unreleased PC version of *Damocles*. However, the article was continually delayed and then Live Publishing went under. Shortly after, Andy wrote a *Mercenary* feature for *Edge* magazine, but it only featured input from Novagen co-founder Bruce Jordan, suggesting that Paul bailed out at some point.

< Mervyn Estcourt

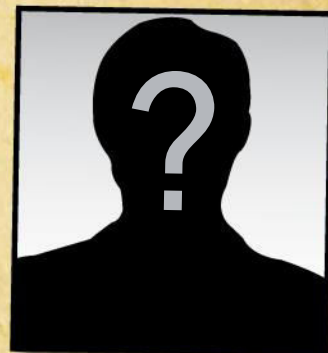
Wanted to discuss: *Deathchase, Deathchase, Deathchase*

In the Micromega feature in *RG81* we revealed that we'd tried to track down the *Deathchase* author for many years but got absolutely nowhere. We thought that he might have emigrated or maybe even shuffled off this mortal coil. That all changed earlier this year when freelancer Graeme Mason managed to get in touch with Mervyn's cousin, Tim Estcourt. Tim reported that Mervyn was alive and well, but sadly he wasn't interested in talking about his programming days, preferring to leave them in the past. Still, it's the 30th anniversary of *Deathchase* next year, so fingers crossed he'll change his mind for this special occasion.

Chris Butler >

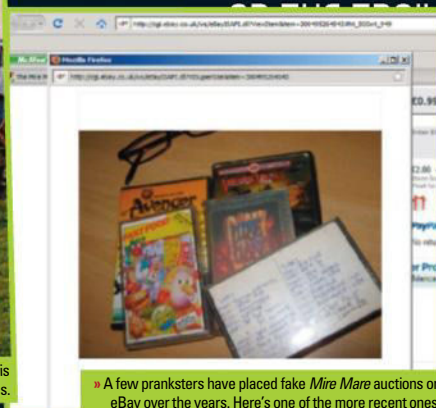
Wanted to discuss: *Classy coin-op conversions*

Chris was the C64's conversion king, producing brilliantly faithful versions of arcade hits like *Thunder Blade*, *Power Drift* and *Ninja Spirit*. He also wrote some very good original titles: *Z*, *Turbo Charge* and budget title *Arnie*. Chris appears to be lying low these days and we've been unable to arrange an interview. A few years back he appeared online via a mobile development company, but emails to him went unanswered. On a positive note, the website outlined his C64 work, so he's obviously proud of his old games. The next time he pops up online we'll try to snare him for sure.





■ The photo from *The Games Machine*'s article. From left to right: Tim Stamper, Carole Stamper, Chris Stamper, Rachel Edwards, David Wise, Mark Betteridge, Paul Byford, Stephen Stamper and Kevin Bayliss.



■ A few pranksters have placed fake *Mire Mare* auctions on eBay over the years. Here's one of the more recent ones.

OF MIRE MARE



■ This is the very first, little-seen Rare company logo, kindly provided by Paul Byford.

Stampers made a complete break from Ultimate at the end of 1986 when they moved to Twycross and set up Rare. Ultimate was never talked about at Rare. Occasionally I would come across something from Ultimate; I recall finding a code printout titled 'Adventure Game', which turned out to be the source for *Sabre Wulf*. I also recall an occasion when someone commented that US Gold was bringing out a collection of the old Ultimate games. Tim looked at Chris and said: 'That's the end of that, then.'

the realisation

That would seem to be the end of this investigation too. It would be great to hear what the Stampers had to say about *Mire Mare*, but that's unlikely given their apparent reticence to talk about the Ultimate days. I was about to give up when I read a post on the World of Spectrum forum where a member mentioned that one of his friends worked at Rare and had personally asked Tim Stamper about *Mire Mare*. I asked if the poster would put me in touch with his friend, and a few hours later I was exchanging emails with Trevor Attwood, a programmer who worked at Rare between 1995

and 2009 and was involved with the *Donkey Kong Country* series and many handheld titles.

I naturally began by asking him about his chat with Tim. "Shortly after joining Rare in 1995," he told me, "I thought it would be the perfect opportunity to ask Tim about *Mire Mare*. Asking Tim about *Mire Mare* and Chris about the *Lunar Jetman* 'trailer' was one of those things many new Rare employees did at that time, because we all grew up playing Ultimate's games. Anyway, Tim's answer was that some of the design had been completed on paper and

years, particularly in conversation with their own employees. Trevor went on to tell me that he was lead programmer on the 2004 Game Boy Advance title *Sabre Wulf*, and revealed that at one stage the game was going to be called... *Mire Mare*! "The development team was asked to think of a name for the game. I remembered *Mire Mare* and thought it would be a good opportunity to finally get it released to the public. So, this and other names were forwarded to the management team. Initially, Tim and Chris thought it was a good idea, but it was later rejected because the game was going to have a worldwide release and the name wouldn't have any weight outside of Britain. Also, *Mire Mare* didn't represent the new GBA game, which was intended to be a reboot of the franchise and hence contain elements from the original *Sabre Wulf* game."

According to Trevor, Rare was hoping that the rebooted *Sabre Wulf* would be a hit and mark the resurrection of Sabreman as a major IP on other platforms. Unfortunately, the game wasn't the big seller they hoped for and our pith-helmeted hero was retired once more, with a Sabreman game in development for the Xbox cancelled in 2005. "*Sabre Wulf* on the GBA was probably the closest *Mire Mare* ever got to release," observes Trevor.

So that really does conclude the investigation. There truly is no finished *Mire Mare* code sitting on an old drive in a dusty cupboard at Rare HQ. For those Sabreman fans and Ultimate aficionados who live in hope of one day finding this 'holy grail', the trail ends here.

Special thanks to Frank Gasking, Jarrod Bentley, Chris Bourne and the Ultimate/Rare employees, past and present, who offered up information.

■ Former Rare programmer Trevor Attwood quizzed Tim Stamper about the *Mire Mare* mystery.



■ The 'Land of Ultimatium' map shows where *Mire Mare* would have most likely taken place.



In the chair with...



MATTHEW SMITH

AFTER YEARS IN THE WILDERNESS, THE CREATOR OF MANIC MINER AND JET SET WILLY IS BACK LIVING AT THE FAMILY HOME IN LIVERPOOL WHERE HE CODED THOSE TWO SPECTRUM CLASSICS. MATTHEW SMITH AND HIS MUM GAVE PAUL DRURY A UNIQUE THROUGH-THE-KEYHOLE EXPERIENCE. HERE ARE 13 SCENES FROM A LOST WEEKEND

This room was piled high with papers and the dog was always coming in and pissing on them,' explains Matthew.

'That's a lie!' protests his mum. 'My dog was very good.' 'Right, I must have been doing it myself,' says Matt. 'It was more likely to be one of the cats,' suggests mum. 'It must have had an enormous bladder, then,' he mutters.

The three of us are standing in the room where *Jet Set Willy* was written. The workstation which once housed a TRS-80 Model 3, a five-meg hard drive and a Spectrum, has been replaced by a glass display cabinet. Four porcelain swans, heads bent, sit atop it. And we're trying to determine which of the family pets urinated on the maps of Willy's mansion.

'Anyway mum, they were your cats.'

Mum suspects that Matthew never really liked any of her animal friends. 'I left that Labrador here one day and Matthew tried to swap it for an Alsatian.'

He chuckles, sheepishly. 'I tried to take it for a walk and it just wasn't a walking dog. So I tried to swap it for one that was.'

'His problem was he was born totally brilliant,' says mum.

We're sitting round the kitchen table now, sharing Guinness and watching the ashtray fill up.

'When he went to school at four, they gave him a reading age of 13 and a half. He sailed through primary school doing what he wanted to do. That's not necessarily good.



» We noticed this master copy of *Jet Set Willy* // underneath a Guinness can on Matt's desk. He's promised not to tape over it.



He learned to read himself, sitting in his pram. You'd be wheeling him down the road and he'd be reading the adverts in the shops. If he didn't know a word, he'd ask what it was. At three he could read a newspaper. That was his party piece: Look Matthew's reading the paper!'

'Now I'm 42 and I'm not allowed to climb a ladder in case I fall off and hurt myself,' observes Matt, dryly.

Mum waves the remark away. 'Well, that's your mother.'

'Oh yes, he was one of these self-contained kids that you want to say, "Go out and play with your friends." But no, he was happy with his own company. Which to a mother isn't a particularly good thing.'

Mum and Matthew exchange a glance and a smile.

'He'd show me these drawings, but not knowing what a computer game was, it didn't mean anything. I mean, they didn't really exist.'

Matt nods. 'I was working out how to make games before I had a computer, scribbling on graph paper at the back of the class. My first game design was actually Jimmy Carter in a rowing boat being chased by rabbits.'

I begin to speculate whether this was an early indication of his slightly surreal game design tendencies, before Matthew points out it was based on an actual incident where the US President was subject to an unprovoked attack from a killer swamp rabbit while out fishing.

'I drew the graphics for that, but there was no way to program it. There weren't really computers at the time.'

'His stepfather bought him his first computer,' interjects mum. It's the only time the man who also gave Matthew the surname Smith is mentioned.

'That was the Tandy in 1979,' confirms Matt. 'I'd first seen *Space Invaders* in the leisure centre where they filmed the stadium scenes for *Chariots Of Fire*. They couldn't get enough extras so they had to use cardboard cutouts. That machine is what got me thinking. When I got my TRS-80, I thought, right I'll play some *Space Invaders*, but I just couldn't get a good version. That was a motivation...'

I open up the draft of Adrian Robson's book, *Miner Willy - From Rags To Riches* at the page featuring *Delta Tau One*, Matt's first published game.

'Ah, my version of *Galaxian*, yeah. In machine code in 4K. On a 1 MHz machine. You don't want to go there. And you certainly don't want to play *Galaxian*.'



» Matt at his JSW workstation, complete with a Tandy Model 4 and a homemade cable to squirt the code over to his trusty Spectrum.



» The original *Manic Miner* cover from when Smith was still at Bug-Byte.



» A visit to the New Brighton arcades of his youth in 2006.

He wipes the remains of some Guinness from his top lip and grins like a Cheshire Catweazle.

'I wrote it, showed it all my friends in the Tandy shop and sent it to Molimerx in Bexhill-on-Sea. They were the only publisher of TRS-80 games back then. I got a letter of acceptance back saying they'd stick it in their catalogue, though I think they accepted everything. The catalogue was about that thick...'

Matt holds up his fingers to indicate telephone directory girth.

'It retailed at £14.95, which was pretty much the normal price and I think they paid 20 per cent of retail. I got a cheque for close to 50 quid so that means they sold, what, fifteen copies?'

Matt squints at the screenshot and reads the '© M. Smith' aloud.

'Maybe I should have chased them for a second cheque,' he muses.

So when did you realise that your lad had talent?

'Oh I always knew he had something, that he had great ability,' says mum proudly.

'I think it was when I was putting cheques into her bank account because I didn't have one myself,' offers Matt.

'You never did that!'

'Alright it didn't happen, I wasn't there.'

'That £3,000 you made from *Valhalla*...'

'Styx,' Matthew corrects her.

'That went on a new computer and a ski trip for you and Patrick,' mum reminds him.

Ah, the Italian holiday where the first sketches for *Manic Miner* were pencilled into that red notebook? They both nod and begin to roll up fresh cigarettes.

'Patrick was the son of a family friend, the family that first introduced us to Wallasey,' remembers mum. 'He had the same wacky sense of humour as Matthew.'

'He's a hypnotherapist in Kingston on Thames now,' observes Matt.

'I remember when he finished *Manic Miner*,' says mum. 'He copied it on to this tape, put his coat on and ran off to take it where it should

be. It was his from start to finish.' We're all in the front room, next to the desk that a 16-year-old Matt must have jumped up from, clutching that precious code before dashing outside. His very own 'eureka!' moment.

'Every now and again I'd take it over to Bug-Byte and meet up with Chris Cannon and Steve, some friends from Tandy. Not that often, maybe two or three times. It only took eight weeks.'

So was it all yours, Matt? Did they offer you any feedback or contribute ideas?

'Nah, all the suggestions had been talked about previously, before I started, with Alan Maton. He came up with the name. The game we were talking about was a lot more like *Space Panic*. There would have been digging and going up and down ladders and stuff. I think I got the jumping thing working first and decided that was enough. A jumping game is simpler to do. And I said, "Look, I can make ladders you can jump up!" As it happens the platform game I'm doing at the moment for phones has proper climbing...'

'He was going to have a year out before he went into sixth form just to have a go at it and of course success came like that, almost overnight.' Mum shakes her head and taps the ash from her roll up. 'The instant success and the instant money did worry me at that age. Money can be a dangerous thing. Too much too soon. Mothers see a broader picture.'

Matthew throws his head back and looks at the ceiling. 'I say not enough and not soon enough.'

'Of course I was worried you were doing too much partying,' says mum. 'All these hangers on saying, "Are you coming for a drink?" and, "Are you buying?"'

Matt leans against the door to the lounge. The very same lounge where he wrote *Jet Set Willy*. By this time, the largest room in the whole house had become Matt's office space and also his unofficial staging area.

Matt nods. 'Had half the world in this room. Starting with Alan behind me, prodding me, saying, "Go on, do another screen..."'

'At that point, Matthew had lost his individuality, his freedom, everything really, to them. He was the goose that was going to lay the golden eggs.'

'I was property.'

But Matt, you were a director of the company. Surely the idea of setting up Software Projects was that you could no longer be pushed around or ignored?



» 'Not as good as Bill Hogue's', concludes Matt of his *Galaxian* clone *Delta Tau One*.



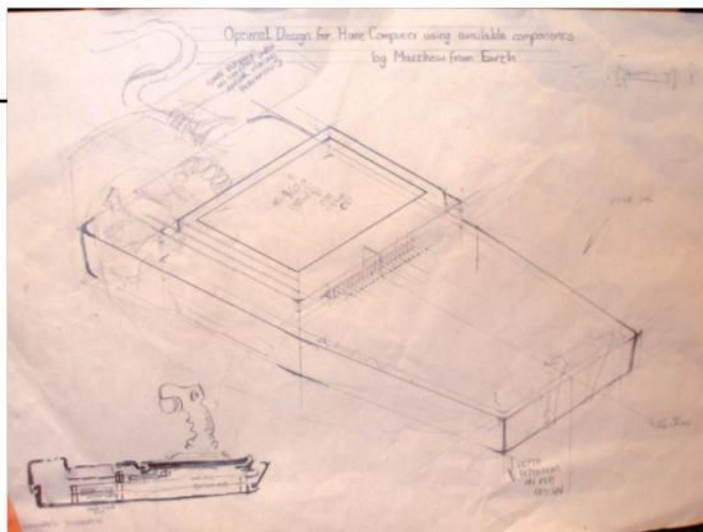
» Matt in his new computer room. 'I've taken to sleeping on the sofa again, just like the old days.'

**"THE
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MOTHERS
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BROADER
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MATTHEW SMITH'S
MUM



MATTHEW SMITH

» Mother and son mull over those pre-Game Boy designs for a handheld computer.



'That was the plan,' he says, forcing a smile. 'But 33 per cent is a minority share. I was still on my own.'

Mum has her own theory. 'By the time he'd done *Jet Set Willy*, he was tired, he needed a break for a while, but the pressure was on to do the next game. Anything creative can't just be churned out to order, but the money went to Alan's head.'

Matt looks at his mum. 'To be fair it went to everyone's head. Absolutely everyone's.'

Mum returns from upstairs holding a page from a large sketchpad. It's from 1984 and is entitled: 'Optimal Design for Home Computer using available components by Matthew from Earth.' The screen resolution is marked as 320x200. A side-on view suggests a joystick could be attached in place of a keypad. There's a cartridge port, with a slot that looks all ready to accept Interface One-sized carts. It looks uncannily like a prototype for Nintendo's original Game Boy, which didn't appear till five years later. Did you show this anyone, Matt?

'Oh no. This is all secret. I had a planner's chest full of secret designs,' he says.

This reminds mum of another enterprising chap. 'That bloke who won *The Apprentice* said he'd always admired Alan Sugar since his dad had bought him an Amstrad and he'd played *Jet Set Willy*. Oh, I felt a tingle of pride when I heard that,' she beams.

Matt is less than enthused. 'Every time I see bloody Alan Sugar I think you owe me 10p for every one of those phones you sold with my game on it.'

Mum ignores him. 'You know we had all sorts of press round back then. Thames Television rang him up and asked him to go on *Tiswas*, but he never did.'

'I was too busy by then,' says Matt. 'Or too closeted.'



Mum has headed off to bingo for the evening and we're crouched round the laptop watching the walkthrough of *Manic Miner*. Suddenly Matt notices an anomaly – the Bug-Byte amoebatrions are gone, but the Software Projects' logo doesn't appear on The Warehouse screen.

'Ah, this could be a very late Bug-Byte version, or a very early Software Projects version,' he says, with a knowing wag of his finger. 'With Bug-Byte, I'd take the tape myself up three floors to the tape duplicators. They had a whole floor at Canning Place. They'd stick my cassette on their posh tape deck and played it loads and loads of times onto one big master, these massive ten-inch reels and they used that to copy at high speed onto cassettes. That master would be going over the tape heads all day, so when it wore out they'd come and get me to make a new tape. I'd get the latest version off the Tandy and squirt it onto the Spectrum and that became the new master. And I'd change things. Quite often. That's how bugs disappear! I don't think there are any bugs in *Manic Miner* because of that. Loads in *Jet Set Willy*. That wasn't released, it escaped...'

He relights his roll up and continues. '*Jet Set Willy* was almost done when we set up Software Projects.'

You mean the mansion was all sketched out?

'Nah, that didn't really happen. I'd do a level and stick it next to that

» **Left to right:** » Little Matthew in his childhood bedroom. Close your eyes and you can see the colours, man... » Matt at Nottingham's Screenplay Festival in 2005, talking to your curly haired correspondent. » Available on your mobile soon?



one and then do another. That's why the map doesn't really make any sense. It was never drawn as one in the first place.'

That explains the odd architecture but what about the possessed Swiss Army knives, the deadly puddings, the pig metamorphosis and the array of inanimate objects brought disturbingly to life?

'That could be the mushrooms,' he suggests.

'Cake!' Matt declares definitively, while holding up his half-eaten doughnut triumphantly.

When I explained **Retro Gamer** readers had posted questions for him online, he immediately signed up for our forums and is now pondering such quandaries as, 'Cake or Death', which cheese to serve at retro gaming events and just who is the greatest Timelord.

He takes an especially long time considering whether he's ever been embarrassed by his cult status, before deciding, 'I enjoy it is the simple answer. I can't think of any embarrassing situations it's put me in. I mean I've had people say [he adopts a high-pitched squeak] "Matthew Smith! Sign this piece of paper for me!" Someone even asked me to sign their Spectrum once.'

Erm, that was me Matt. Does that make us all sad fanboys?

'I'm just saying I've never done it to anyone else,' he winks.

Matt reaches for his lighter. 'Let's see, how much can I say...'

I'm trying to get some details on the mobile phone game he's alluded to, but things remain vague.

'I haven't thought about it for a while. I've got three different versions of the main characters, according to what the artistic and legal imperative is,' he says mysteriously. He faffs around for five minutes, changing the hard drive of his PC at one point, and finally gets a set of sprites up on screen, including an undulating caterpillar and a waltzing pig apparently balancing a milk bottle on its snout. 'Not exactly something from my back catalogue, but very similar in style. Could be *'Mooner Wally'*.'

I completely miss the point of this copyright-skirting name change and ask if a game around flashing might expose Matt to a little controversy.

'My first thought was having him go to the moon, but a guy who shows his arse - yeah!'

He laughs loudly and continues to giggle when I show him some screenshots that **Retro Gamer's** own Richard Burton discovered buried in Matt's old website.

'*Oh Diana!*. Ah, that was a platform game in Flash; based on a character done by a Sri Lankan comedienne I met on this programming forum. Nah, never got finished.'



» Matthew conclusively answers the 'Cake or Death' question posed on the **Retro Gamer** forum.



» Some screenshots of one of Matt's unfinished platformers, *Oh Diana!*.

All these loose ends. I press him further on his most famous lost game, '*Miner Willy Meets The Taxman*', a ten-level horizontal-scrolling platformer for the Speccy, not to be confused with the Commodore 64's *Megatree*.

'You'd start in modern times and then go back through various periods of English history. A Tudor level, a medieval one, something with the Celtic tribes in, back to the Romans, who were the first taxmen.' He taps the side of his head. 'It's still all up here.'

Mum's back from bingo, having bagged £100. We're all toasting her success with the last of the Guinness quickly followed by a fresh bottle of red. The mood is upbeat, until mum puts down her glass.

'You know, it is bad that Matthew now has nothing. You'd think somewhere, in all these websites and talk about him, he should have some money.'

There's an awkward silence. I try to fill it by rambling on about how many people out there still care about Matthew, want to know he's okay, wonder what he's going to do next. Matt mumbles, 'Yeah,' and they both smile.

'Who'd have thought that nearly 30 years after there'd be all this interest in those early computer games,' mum says. 'I suppose for them it's history. For us it's just a few days ago.'

It goes quiet again. 'Coffee anyone?' she asks.

The next morning, Matt shows me the photographs that mum has carefully kept alongside various press cuttings of Matthew from the Eighties. There's one of him as a baby splashing in a sink, another of him with his first bike and some magazine shots of him at his workstation during the development of *Jet Set Willy*. He passes me one of himself at seven, in pyjamas, staring wide-eyed into the distance. Behind him are swirling patterns, like giant rainbow fish or peacock feathers perhaps.

'Yeah, my dad painted my bedroom wall with all these colours. Psychedelic,' he smiles, with the same twinkle in his eyes.

Before I leave, he gives me a little souvenir. It's a sketch his sister Michelle did of Matt, sprawled on a sofa, surrounded by overturned cans of lager, half-eaten tins of beans, computer manuals, crumpled fag packets, a half empty bottle of British sherry and some little scribbles of ladders and platforms.

'She was at art college when I was coding *Manic Miner*. Yeah, I imagine that's how she found me some afternoons.'

I say I'll get it framed and call it '*After Tracey Emin's Bed*'. He laughs and then suddenly notices the picture includes the family cat sitting on top of the settee.

'Now does that cat look like it has a bladder big enough to soak four inches deep of paper right through?'

“I WAS WORKING OUT HOW TO MAKE GAMES BEFORE I HAD A COMPUTER, SCRIBBLING ON GRAPH PAPER AT THE BACK OF THE CLASS” MATTHEW SMITH

R-TYPE

ASTONISHING SPECTRUM OWNERS SINCE 1988



- » PUBLISHER: SOFTWARE STUDIOS
- » RELEASED: 1988
- » GENRE: SHOOT-'EM-UP
- » FEATURED HARDWARE: ZX SPECTRUM
- » EXPECT TO PAY: A FEW QUID



HISTORY

There are a great many superb arcade conversions available on the ZX Spectrum, but one of our favourites is this stunning port of Irem's hit shoot-'em-up that came out in 1988.

Programmer Bob Pape recently revealed the creation of his epic conversion in an online book called *It's Behind You: The Making Of A Computer Game*. It's a fascinating look, not only at the creation of Bob's epic conversion, but also of his time in the games industry and the many other games he worked on. It also explains why the original version of *R-Type* was missing the eighth and final level. In short it's an essential read and I recommend you head on over to Bob's site now at www.bizzley.com and download it.

Even with the hindsight of Bob's account of how he pulled off all the graphical trickery found in his conversion, *R-Type* remains an astonishing adaptation, accurately capturing all the major points of the game and marrying them to smooth scrolling and large, detailed sprites.

The multiloop is a pain, but it remains an incredible achievement that captures all the thrills and spills of the original arcade game. Huge bosses including the mothership on the third level, excellent hit detection and accurate use of the Force power-up makes *R-Type* an amazing Spectrum blaster that deserves to be in everyone's collection. *R-Type* was apparently quite rare where Bob lived, but I have fond memories of playing it in the Poole arcades before nipping around to my friend's house and continuing the fight against the Bydo enemy there. Thanks Bob, you're the best.







Durell Software

As software houses go, Durell couldn't claim to be the most prolific, exciting or successful, but it was responsible for several superb Spectrum hits, including Harrier Attack, Saboteur and Turbo Esprit. Martyn Carroll talks to its key people and charts its brief but bright history

The sum of £100 is important in the history of Durell Software, and no, it has nothing to do with the cash reward that the company offered to anyone who dobbed in a dirty pirate. Funnily enough, when Durell is mentioned these days, the topic almost always turns to this infamous £100 reward, so we began by asking Durell founder Robert White about it. Did any playground pirates do jail time for ripping off Turbo Esprit? Was the office inundated with illicit tapes and anonymous tip-offs? "It was an absolute hoax," he laughs. "You wouldn't go prosecuting some kid, would you? No one contacted us anyway. The only thing we got were people phoning up and saying things like, 'I've been playing Combat Lynx and I landed my helicopter in front of a tank and the tank drove straight through

it. Why didn't it blow up?' Piracy was definitely a problem, but the reward was just a bluff really." But what about those special Durell-branded blue cassettes that identified legitimate copies? They must have been expensive. Robert laughs again. "It was simply that our tape duplicator had some blue tapes! That was it. Nothing conscious there at all."

Forget the reward – £100 is important because that's the capital Robert used to start up Durell in 1983. With the money he bought a shiny new Oric-1 computer and taught himself how to program it. Prior to this, his background was somewhat less technical. He actually qualified as an art teacher but soon discovered that half the population had too. "I remember applying for one job and there were 800 applicants," he says. Switching career

INSTANT EXPERT

The company name comes from one of the middle names of its founder, Robert James Durell White.

Durell Software began life on 14 February 1983 with Robert as its sole member of staff. Ron Jeffs and Mike Richardson joined the company four months later.

Durell's first Oric games (*Lunar Lander* and *Asteroids*) were written in BASIC and the listings were annotated with explanatory REM statements, the idea being that budding programmers could understand how the games worked.

In-house programmers were on a salary, but they were also paid a royalty of 50p per game sold.

Harrier Attack was bundled with the Amstrad CPC464, adding another 100,000 units to the game's already stellar sales figures.

Despite releasing games on multiple formats, the Spectrum emerged as Durell's lead platform. Robert puts this down to Mike Richardson's skill with the machine.

Saboteur was the only Durell game to receive a sequel. According to Clive Townsend, it was simply down to the success of the first game.

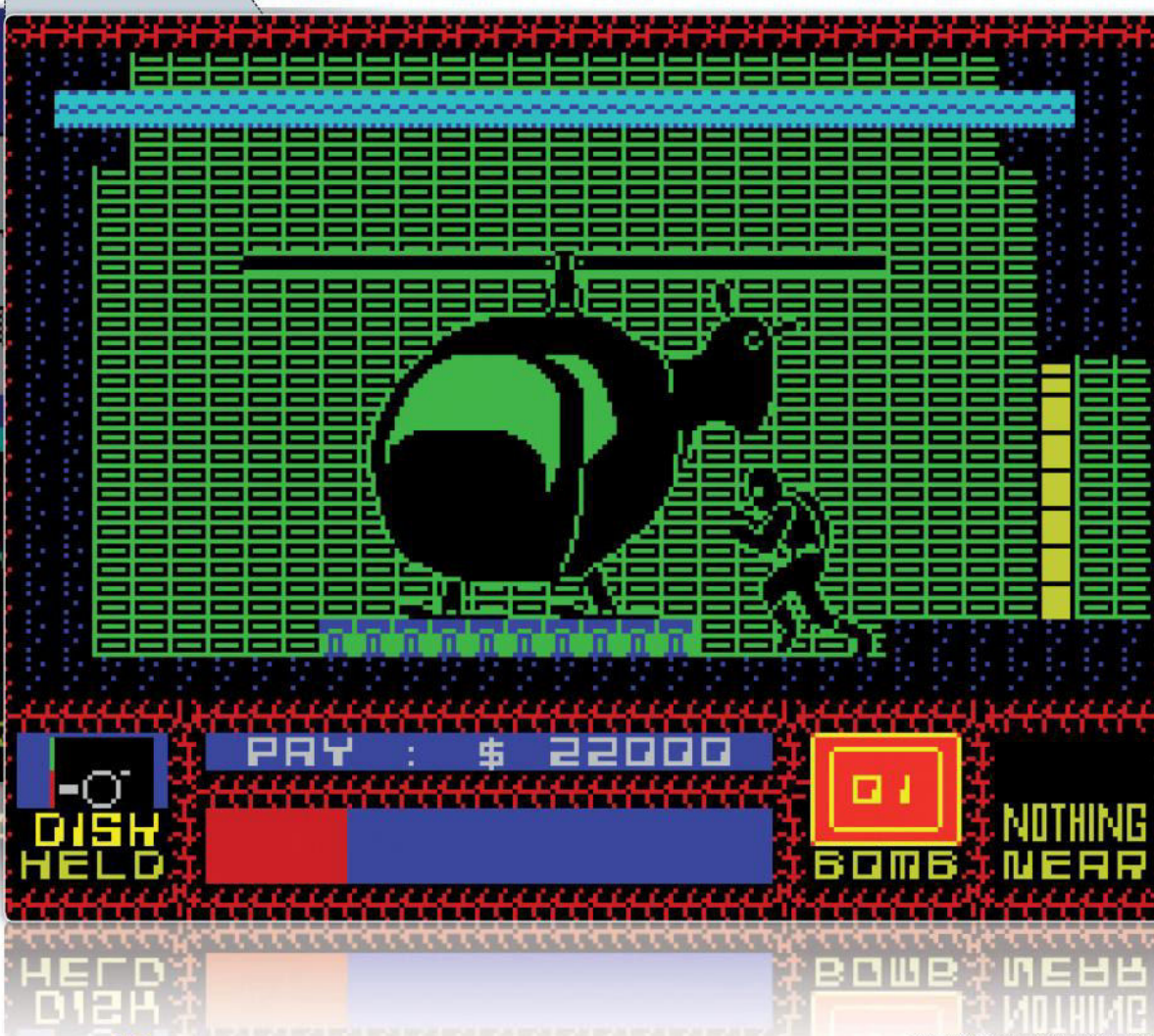
Turbo Esprit is often held up as the precursor to the GTA games, yet DMA Design's Mike Dailly has told us that the chief inspiration for GTA was the *Syndicate* games.

paths, he gained a degree in quantity surveying and landed a job at the Oxford Regional Health Authority. In his role as a senior architect, he used CAD software to design hospital buildings and quickly developed a fascination with computers, and in particular the notion of using computing to solve problems.

"I was in the job for three years," he says, "but then my wife's grandparents died and we had the opportunity of moving into their house, and that was out in the country in Taunton where there was a great shortage of hospitals to be designed! So I left my job, bought an Oric and basically went to work in my bedroom like a maniac. My start-up capital was the cost of the Oric, and that was all the money I had in the world. So I wrote the first of our games for the Oric to generate some income. They were pretty crap, but they sold really well as there was absolutely nothing available for the computer at the time. I could hardly not sell a game."

Staffing up

The very first Durell games were *Lunar Lander* and *Asteroids* for the 16K Oric. They were sold via mail order and as the orders stacked up, Robert quickly realised that he didn't have enough hands to write programs and run the company at the same time. He needed skilled staff, so he

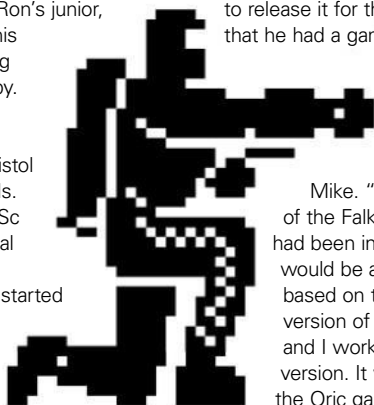


placed an advert in his local newspaper looking for machine code programmers. The ad was answered by Ron Jeffs and Mike Richardson.

"It was one of those fluke things," says Ron. "I wasn't actually looking for a job, but my wife was. So we got the local paper and were looking through the vacancies and came across Robert's advert. I rang him and drove out there the same day and came home with an Oric under my arm!" Originally hailing from Brighton, Ron was an engineer by trade and developed an interest in programming after picking up a Sinclair ZX80. He left the German company Nixdorf Computer to join Durell at the age of 46.

Mike was 20 years Ron's junior, but in similar fashion, his interest in programming was initially just a hobby. "I used to work in an aerosol factory and I studied part-time at Bristol Polytechnic," he reveals. "Eventually I got an MSc in instrumental chemical analysis, and I was still doing that when I first started with Durell."

Robert hired Mike on the strength of a quaint Spectrum



“I rang Robert and drove out there the same day and came home with an Oric under my arm”

RON JEFFS MAKES IT THROUGH DURELL'S STRINGENT HIRING POLICY

game he'd written called *Jungle Trouble*. "I saw a television advert for a game, which I think must have been *Pitfall*, and the game grew from that," says Mike. "It took me about five or six months to complete, but I was only doing it part-time as I was working at the aerosol factory at the time." Robert liked the game and later managed to release it for the Spectrum, but before that he had a game idea of his own that he wanted his new recruits to realise.

"The original *Harrier Attack* idea was Robert's," remembers

Mike. "He thought that because of the Falklands War, the Harrier had been in the news a lot, and it would be a good idea to do a game based on that. Ron did the first version of the game for the Oric and I worked on the Spectrum version. It was a big help to have the Oric game as a guide as there

was no decision-making to do along the way. There were no graphics or code sharing – I looked at what Ron had done, then went and did my own thing."

Ron adds: "Robert explained his idea and it was quite primitive really. You basically took off in your plane and got shot at, and you shot back, and that was it."

Harrier Attack was a simple *Scramble* clone wearing topical trousers, but Robert was convinced that it would be a hit with gamers. He was so certain that he booked £20,000 of advertising to promote the game. "By the time *Harrier Attack* was ready for release around September 1983, I'd used pretty much all of the company's money to pay Ron and Mike to that point, so I went off and booked all this advertising with no way of paying for it! But I was 100 per cent confident that it would work out. I remember saying to my wife one day, 'I think we'll probably make £40,000 by Christmas', and in the end that's roughly what we did. In my

□ BY THE NUMBERS

- 29** The age of Robert White when he founded Durell in 1983.
- 500** The number of tape copies Robert made of his Oric assembler program. He sold them all.
- 5** The choice of skill levels offered to the player in *Harrier Attack*.
- 4** The number of Durell Spectrum games that were rated above 90% in *Crash* magazine. (The titles were *Critical Mass*, *Saboteur*, *Fat Worm Blows A Spark* and *Thanatos*.)
- 0** The number of Durell Commodore 64 games that were rated above 90% in *Zzap!64*.
- 9** The percentage rating that *Zzap!64* awarded to the Commodore 64 version of *Turbo Esprit*. Yes, it really was that bad.
- 10** The number of months it took Mike Richardson to create *Turbo Esprit* for the Spectrum. This was the longest he spent on any game.
- 112** The number of screens in *Saboteur*. The sequel was roughly seven times bigger.
- 100,000** The number of copies of *Saboteur* sold on its initial release.
- 250,000** The number of *Harrier Attack* sales, including the copies bundled with the Amstrad CPC464.



Durell's *Scuba Dive* proved it was possible to create gripping game concepts out of almost any type of scenario. It was inspired by the team's love of diving.



Although Clive's Spectrum version of *Death Pit* was cancelled, the game had an obvious influence on sections of *Saboteur*.

architect role I was earning £9,000 a year, so £40,000 was a huge amount of money at the time."

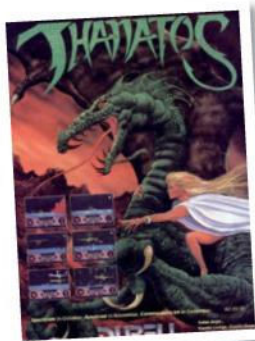
Chart attack

Sales of Durell software suddenly went bonkers. By July 1983 Robert had managed to shift 800 tapes, but by the end of the year that figure had risen to 20,000. *Harrier Attack* alone went on to sell a colossal 150,000 copies and the success of this single title funded game development for the next three years.

Mike devoted himself full-time to Durell and began work on underwater jaunt *Scuba Dive*. "Robert wanted us to do a *Frogger*-style game," says Mike. "We had an ideas meeting and decided to replace the frog with a diver and the obstacles with dangerous fish, and it grew from there, eventually into more of an exploration game." *Scuba Dive* was followed by *Combat Lynx*, an ambitious game that put players in control of a

“ Sales had risen from 800 tapes to 20,000. Harrier Attack went on to sell 150,000 copies ”

DURELL HITS THE GROUND RUNNING WITH ITS FIRST HIT



Thanatos came after Robert's decision to leave gaming for the more stable and predictable world of business software.

military attack helicopter. Although *Harrier Attack* was wildly successful, Mike wasn't about to replace the plane sprite with a chopper and be done with it. Instead, he crafted a game that was part shooter, part simulation, and featured great 3D graphics. "I always had a thing about not repeating myself," he says when asked about avoiding the easy option. "Besides, I had an idea about how to do a 3D landscape after seeing the output from a scanning electron microscope while I was doing a chemistry course."

Robert realised early on that for a game to be a success, it needed to appear on as many platforms as possible. Lots of

conversion work was handed to Ron Jeffs, who rewrote *Scuba Dive* for the Oric and *Combat Lynx* for the Commodore 64. Ron went on to port several more games to the C64 – and not just because he was familiar with the 6502 processor, which powered both the Oric and, in modified form, the C64. "It was partly because I had a grounding in the 6502 processor, but largely because Robert simply needed someone to write versions of the games for the C64. And because Mike was so good on the Spectrum, I stepped in to do the C64 stuff. I always thought the 6502 was one of the best processors anyway. It was so simple and that made it so fast. It really put the onus on the programmer to be smart with it."

Mike turned his hand to the Amstrad CPC when it was launched in 1984 and he quickly converted *Harrier Attack* to the new machine. The game attracted the attention of Alan Sugar, who was desperate for software to publish on his

WHERE ARE THEY NOW?



Robert White

The founder of Durell Software now runs Durell Solutions out of the same office complex in Taunton. The company provides administration software to the insurance industry. "Doing games was not a lot different from what we're doing now," he says. "It's about coming up with ideas to solve problems and trying to present the solutions attractively."

Mike Richardson (pictured)

Apart from a spell with Robert on business software, Mike has been

involved with games for the past 20 years. He has written games for the PC, PlayStation and 3DO, and is currently working on iPhone software. In his spare time, he is studying maths at the Open University. He also likes to mess with electronics. "For Christmas I got a PIC microcontroller programmer board kit. I haven't done any soldering for a long time so I'm looking forward to playing with that."

Clive Townsend

The *Saboteur* creator now runs Incognito Games, which has

produced many titles for mobile phones, including the 2007 hit *Sonic Jump* and the official *X Factor* game. In his spare time he plays too much *FarmVille* on Facebook.

Ron Jeffs

Ron has worked with Robert since back in 1983. He was Durell's head of support from 1988 until 2009, and now, aged 72, he has taken on a part-time role. According to Robert, he's still great to have around, and a very much appreciated member of the team.

Julian Todd

For the past 17 years, Julian has used his geometric talents to write algorithms for CNC Machine Tools, based in Norwich. For fun he works on "disruptive political websites".

Nick Wilson

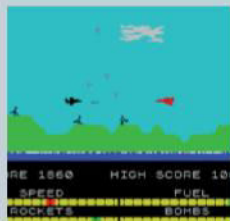
Nick has worked in the games industry for a number of years since he wrote *Deep Strike*, including a spell making games for Eidos. He currently runs StarByte Software, which is behind the iPhone games *Black Mamba Racing* and *NEX*.



SIX OF THE BEST

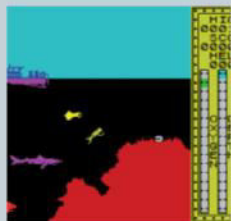
Harrier Attack [1983]

Included not because of its importance in the history of Durell, but because it's a great little game in its own right that's perfect for quick blasts. It's probably best remembered on the Spectrum and Amstrad CPC, yet the Commodore 64 version comes out on top thanks to its slick graphics and decent sound effects.



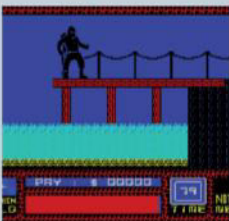
Scuba Dive [1984]

Mike Richardson's first game of note was this cracking marine adventure, which saw the player salvaging treasure from the deep while avoiding all manner of underwater beasts. It's littered with lovely little touches, like the moving boat on the surface and the big ol' octopus guarding entry to the deeper caverns below.



Saboteur [1985]

Yes, the game where you could kick dogs to death, but there's much more to *Saboteur* than wanton canine cruelty. The emphasis was on exploration, and discovering new areas in the huge enemy complex was perhaps more satisfying than actually completing the mission objective itself. *Saboteur* is a true 8-bit classic.



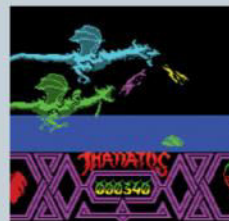
Turbo Esprit [1986]

Widely considered to be Durell's finest release, this exceptional driving game invited you to race through 3D cities and bust drug smugglers while obeying traffic signals, pelican crossings and other rules of the road. Pretty epic – by the standards of the Spectrum, at least – and you can't say that about many 8-bit games.



Thanatos [1986]

Durell games often featured flashy, high-tech scenarios, so this fantasy arcade game set in medieval times was a welcome change. Graphically it was amazing, particularly the main dragon sprite, but as with all of Mike Richardson's work, it was the little details about it that really stood out. A game made with obvious affection.



Saboteur II [1987]

Subtitled *Avenging Angel*, the sequel featured a face-kicking female protagonist, which was a novel twist at the time. *Saboteur II* just about had the edge over the original – the game map was bigger and there were distinct missions that increased replay value. Plus, you could bust out of the enemy base on a red motorbike...



Amsoft label. The deal was done and *Harrier Attack* became one of the games bundled with the computer. "Alan is a smart businessman," says Robert. "You don't get a lot out of Alan Sugar. It was nice to shift an extra 100,000 copies through Amstrad, but he was on a very tight budget. I doubt in the end if he even paid 10p a copy. It wasn't a great deal for us, but it was a nice little extra."

For the BBC Micro, Robert looked to a couple of young programmers who had previously written games for the Acorn machine. Nick Wilson and Julian Todd were two school friends who grew up just 20 miles away from Durell's offices in Taunton. "We sold Durell one game for the BBC Micro called *Mineshaft*," says Julian, picking up the story. "Then we ported *Combat Lynx* from the Spectrum to the BBC over many weekends in Nick's bedroom. When that was done, Nick dramatically cleared his desk in the middle of the week and dropped out of

SABOT3UR?

The full story behind the third *Saboteur* game would require an article in itself, so we'll briefly summarise the reasons why you've never had the chance to play it. The first attempt was made by Mike Richardson shortly before Durell sold its games to Elite. A design was drawn up and Mike created a bunch of sprites and even some mocked-up screens, but development ceased when the sale went through. Clive Townsend later started work on his own Spectrum sequel under the title *Saboteur 3D*. A demo was produced but Clive decided to shift development to the PC instead. The game then went through various iterations during the Nineties before being placed on the back burner around 1998, where it remained. More recently, Clive was speaking to a developer about resurrecting *Saboteur 3*, but once again it didn't work out. "Sadly the developer didn't actually set up the company as he'd planned, so nothing was ever done," reveals Clive. "I still have an extensive design document,

though, so if there are any serious producers out there, they should get in touch!"

So one day we may get to play a new *Saboteur* game, and there's even a chance that Clive's *Saboteur 3D* demo for the Spectrum may surface. "I found a load of Microdrive cartridges, but none had *Saboteur 3D* on them," he says. "I'm starting to suspect that it was on a Spectrum +3 disk, so I'll have to check the loft..."

Here's a glimpse at Mike Richardson's unreleased *Saboteur 3*. This screen, and many others, were recently retrieved from Mike's old Microdrive cartridges.



school to pursue games writing full-time. Later, after attending school in Cambridge for several months, it was my turn to drop out. I rented a crummy room in a shared house in Taunton with Nick and we each worked on new games in the Durell Software attic." Nick's game was the impressive biplane shooter *Deep Strike*, while Julian was responsible for the utterly bizarre – but in a good way – *Fat Worm Blows A Sparky*.

New recruits

More fresh faces soon appeared. Simon Francis was a college kid who impressed Robert with a dungeon game he'd written for the Dragon 32 called *Pit Fiend*. He joined the company in early 1985 and reworked *Pit Fiend* as *Death Pit* for the Amstrad CPC, then authored the *Dune*-inspired Spectrum game *Critical Mass*.

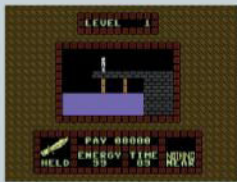
Another new starter was budding Z80 programmer and martial arts enthusiast Clive Townsend, who happened to live on Durell's doorstep in Taunton. He hung around the offices and was initially employed as a graphics dogsbody. His first two games as a programmer – a platformer called *Chicken* and the Spectrum version of *Death Pit* – were both canned, but it was a useful learning experience as he acquired enough machine code knowledge to bring alive his 'pet project', an arcade adventure he'd named *Ninja*. "Clive had a great visual sense and one day he came in with some graphics of people who could punch and stuff," remembers Robert. "I said, 'That would make a great game, so let's come up with a storyline and put it together.'" That's exactly what they did, and the

result was *Saboteur*, a solid-gold smash that went on to sell more than 100,000 copies and become Durell's second bestselling game after *Harrier Attack*.

While *Saboteur* was assailing the charts, Mike was busy fine-tuning his most ambitious project yet. "It was Robert who suggested that I should do a driving game," he says. "He wasn't very specific. It was also his idea to tie it in with Lotus." With the basic concept in place, Mike went off and created the Spectrum classic *Turbo Esprit*. Making the game's 3D cities come to life was no mean feat for Mike. "I'd just done *Combat Lynx*, so I was keen to use a similar type of 3D system. There were lots of tricks I used to get the speed up. It was all done using a lookup table so there were no 3D calculations. I really had to use every available bit in the Spectrum to do it."

Turbo Esprit sold 50,000 copies, and while it couldn't match the success of *Saboteur*, it proved that the firm could still produce sizable hits in a marketplace that had become much more competitive. Yet

□ THREE TO AVOID



Saboteur Jr [1986]

Okay, so there was no actual game with this title, but we can't think of a better way of referring to the Commodore 16 version of *Saboteur*. Featuring minute graphics and dozens of samey screens, it was a sorry affair all round. At least Plus 4 owners received a version based directly on the Spectrum original.



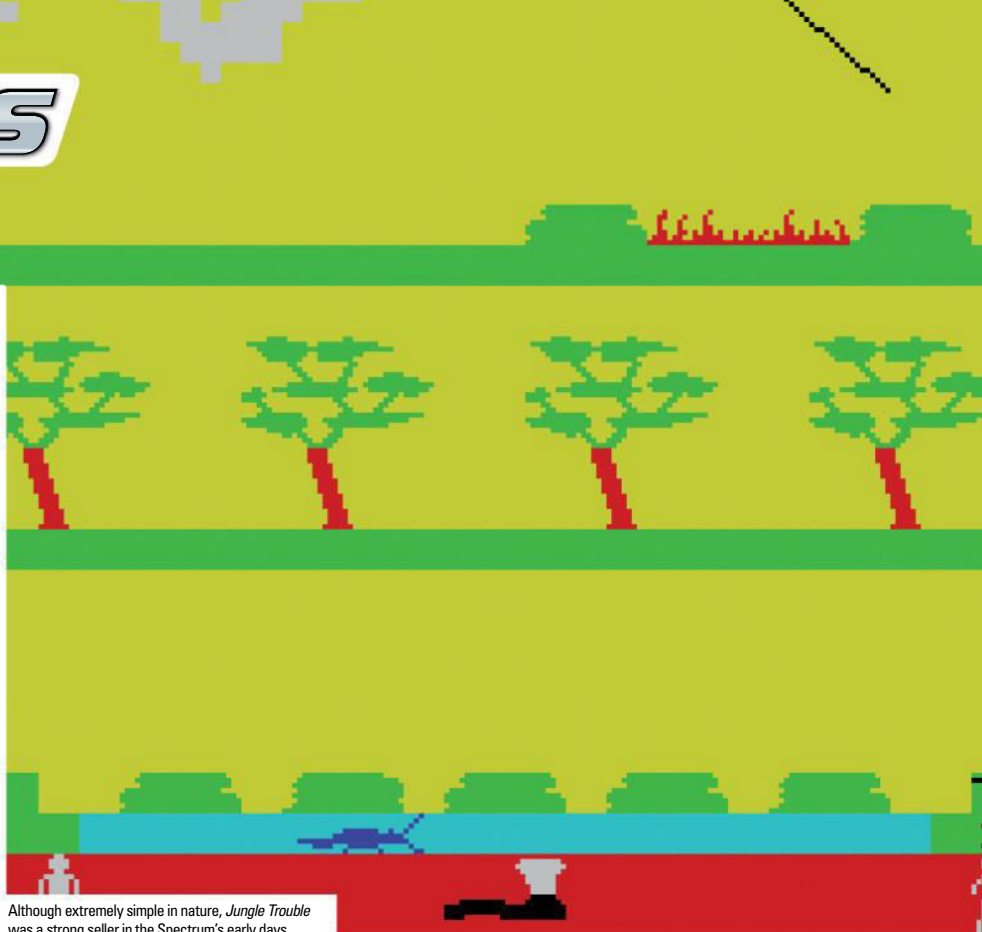
Sigma 7 [1987]

This misguided space romp was made up of three mini challenges: a *Zaxxon*-style shooter, a *Pac-Man* maze game and a puzzle section. None were particularly bad, but they failed to hang together as a complete title. The isometric graphics were good, though, so maybe it's worth a look for that reason alone.



Chain Reaction [1987]

One of Durell's last releases was also one of its least impressive. Reminiscent of Ultimate's 3D games, only without the charm, *Chain Reaction* tasked you with exploring a nuclear power station and gathering up dangerous radioactive waste. Despite you racing against the clock, the gameplay was yawn-inducing.



Although extremely simple in nature, *Jungle Trouble* was a strong seller in the Spectrum's early days.

to stay in the race, Durell had to continually strive to develop innovative new products that would stand out from the crowd. It was a challenge that the programmers appeared to relish, but it came at a cost: games were taking longer and longer to develop. Take Mike's Spectrum output, for example: he wrote the Spectrum version of *Harrier Attack* in two and a half weeks, while his next game, *Scuba Dive*, took three months. This was followed by *Combat Lynx*, which was eight months of work, and then he devoted ten months to *Turbo Esprit*.

Mike reveals that no firm deadlines were ever put in place and he never felt under pressure to get a game out the door. "Ten months was a long time, but personally I always felt that it was worth putting in as much effort as possible and would probably have resisted pressure to cut corners quite strongly. One thing

“By 1987, the financial rollercoaster was too scary. I just couldn't sleep at night”

ROBERT WHITE ON HIS DECISION TO GET OUT OF GAMING

about Spectrum development at that time was that once the 48K had been filled, there wasn't much more that you could do. That used to be my cut-off point. I think the lack of pressure certainly did make for a better game, although I can imagine that Robert may have been a bit anxious at times.”

Mike was correct and Robert did indeed have cause for concern. “It had become an incredibly risky business,” he says. “There was increased competition and we had to keep coming up with new games, new ideas. It soon became that

every game we launched was around an £80,000 gamble. Some of the games worked and some didn't, regardless of critical acclaim. For me personally, by the time we got to 1987, the financial rollercoaster was just way too scary. It got to the point where I just couldn't sleep at night, so I made the decision to move into business software.”

While the company continued to put out impressive games during this period – Mike's *Thanatos* and Clive's *Saboteur II* were of particular note – Robert began parallel development of a database program aimed at the insurance industry. When between games, programmers would often get involved – Clive remembers working on the graphical interface for the application. Then, in December 1987, Robert made the shift complete by selling the rights to Durell's games to Elite Systems. Elite boss Steve Wilcox was looking to expand and viewed Durell as a decent acquisition: “We had an acquaintance with Robert and were keen to continue to grow our business, including



TIMELINE

ROBERT WHITE FOUNDS DURELL SOFTWARE IN FEBRUARY OF THIS YEAR. AND RON JEFFS AND MIKE RICHARDSON JOIN IN JUNE. BEFORE THE YEAR IS OUT, DURELL RELEASES SEVERAL GAMES INCLUDING GALAXY 5 (ORIC), JUNGLE TROUBLE (SPECTRUM) AND HARRIER ATTACK (ORIC AND SPECTRUM).

DURELL KICKS OFF THE YEAR WITH SCUBA DIVE (ORIGINALLY FOR THE SPECTRUM, WITH ORIC AND COMMODORE 64 VERSIONS FOLLOWING), AND ENDS IT WITH COMBAT LYNX AGAIN, WRITTEN FOR THE SPECTRUM BUT PORTED TO OTHER PLATFORMS). THE COMPANY ALSO RELEASES ITS FIRST BBC MICRO GAME, THE MANIC MINER VARIANT MINESHAFT. HARRIER ATTACK IS BUNDLED WITH THE NEW AMSTRAD CPC COMPUTER.

SIMON FRANCIS AND CLIVE TOWNSEND JOIN THE COMPANY. SIMON WRITES DEATH PIT FOR THE AMSTRAD CPC AND CRITICAL MASS FOR THE SPECTRUM, WHILE CLIVE CODES SABOTEUR FOR THE SPECTRUM.

DURELL RELEASES TWO SPECTRUM GAMES BY MIKE RICHARDSON: TURBO ESPRIT AND THANATOS. FORMER DURELL FREELANCERS NICK WILSON AND JULIAN TODD ARE ADDED TO THE PAYROLL AND THEY AUTHOR DEEP STRIKE AND FAT WORM. BLOWS A SPARKY RESPECTIVELY. THE DURELL BIG-4 COMPILATION IS RELEASED, FEATURING COMBAT LYNX, CRITICAL MASS, SABOTEUR AND TURBO ESPRIT.

SIGMA 7, SABOTEUR II AND CHAIN REACTION ARE RELEASED. DURELL DEVELOPS ITS FIRST DATABASE PROGRAM (INSURANCE MASTER). AT THE END OF THE YEAR, DURELL SELLS ITS BACK CATALOGUE OF GAMES TO ELITE SYSTEMS AND CONCENTRATES SOLELY ON BUSINESS SOFTWARE.

1983

1984

1985

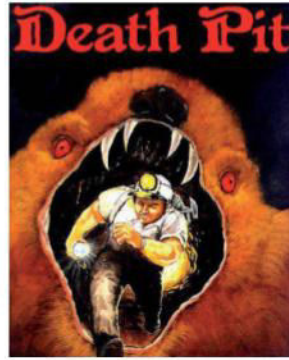
1986

1987

FROM THE ARCHIVES: DURELL SOFTWARE



Durell's *Turbo Esprit* was incredibly popular on its release, netting impressive scores from all the available Spectrums magazines, including 88% in *Crash*.



Clive Townsend being manhandled by a ninja in this memorable photo, which appeared in *Crash* magazine.



Ron Jeffs's *Harrier Attack* started off on Oric, before finding success on other 8-bits.

Robert White (right) shows Mike Richardson the capabilities of his Oric computer.



our budget and compilation business. We had no significant regrets about the deal we did for the Durell catalogue and would probably have done it again if we had our time over."

With the games gone, Robert spent the next two years developing his Insurance Master program. The bold move to stabilise the company paid off and it continues to trade to this day under the name Durell Solutions. "We're still developing and selling insurance software, 20 years on. It doesn't make a lot of money, but it never makes a loss. I've kept a lot of people employed for a long time and I feel quite good about that."

Looking back

Durell has now been around for 27 years, and while only the first four years focused on gaming software, the place holds happy memories for those ambitious young programmers who plied their trade in sleepy Somerset. "They were the best years of my working life," says Mike Richardson. "There's no feeling like finding

you're good at something, seeing your work on shop shelves, getting amazing feedback from people enjoying your work, and getting paid well for it as a bonus."

Saboteur creator Clive Townsend, who now runs mobile developer Incognito Games, remembers his coding colleagues with fondness: "I think we were all sad when Durell stopped making games, but I'm proud to have worked with such a talented bunch of people. Robert was brilliant. It was a very relaxed atmosphere, and as we didn't actually have design specs for our games, we didn't really have deadlines either! Many of the game designs grew organically, which meant they were finished when they were finished. I've had lots of fun in the industry since, but often big business and red tape can get in the way of creative development. If only more bosses were like Robert."

Julian Todd of *Fat Worm* fame also remembers Robert as a decent and honourable boss: "He barely interfered. Today I do a little bit of management of

HARRIER DOWN

When **RG** interviewed Mike Richardson about *Turbo Esprit* in issue 36, he revealed that he'd formed a new company called Durell Games and was working on *Harrier Attack II* for the PC. The game, which married the classic 2D gameplay of the original with slick 3D visuals, was made available to download in October 2007 after three years in development. It bombed.

"It was a complete disaster," says Mike. "I think I sold something like six copies. I try not to think about it too much. The main thing I learnt was not to try it again. Before I did *Harrier Attack II* I would hear other programmers saying how it was possible for a game to sell millions or none at all, and I didn't believe it. How is it possible to sell nothing of anything? Now I know I can do it."

After that harsh lesson, Mike went on to work for Electronic Arts, helping out on the PC versions of *Burnout Paradise* and the latest *Harry Potter* game. He has since joined up with his former Durell colleague Nick Wilson at iPod/iPhone game developer StarByte Software. His current project is a racing game called *Black Mamba 3D*.

programmers, and I know it is impossible to hassle them, as you simply annoy them and yourself. Being relaxed is pretty much your only option, whether you like it or not. I would like to meet Robert again now that I have experienced the other side of business. I am fascinated that he pulled it off and made a living out of us kids. He paid 50p per copy sold, and I got cheques totalling several thousand pounds, so he was very honest. He could easily have not paid me anything."

Robert himself feels that it's important to look forward more nowadays than back to the company's heyday, yet despite this there are still reminders of his firm's gaming legacy all around him. Cover art from various Durell hits adorns the office walls, he keeps in regular touch with many of his old employees – indeed, Ron Jeffs still works with him – and the £100 he used to buy that first Oric is still there sitting on the company balance sheet. Above all that, Durell's classic games are still remembered and revered by too many people to ever let them fade into obscurity. "I think at Durell we had a lot of really original ideas," he acknowledges, before regaling us with an appropriate tale. "Just yesterday I was on site talking to a potential customer and he said, 'You're not the Durell who wrote *Harrier Attack*, are you?' And I replied, 'Yeah, that was us', and then his partner came in and piped up, '*Saboteur*! That was a great game!' So yes, it's still a lot of fun. I guess people have fond memories of our games, and I do too."



The stunning *Thanatos* remains one of Durell's best Spectrum games.





The Collector's Guide



SINCLAIR ZX

Interested in collecting for Sir Clive Sinclair's awesome 8-bit computer? Then the following guide is exactly what you need



» **Manufacturer:** Sinclair Research » **Models:** 16K/48K/128/+2/+3 » **Launched:** 1982 » **Country of origin:** UK

SPECTRUM



THE COLLECTOR'S GUIDE: SINCLAIR ZX SPECTRUM



Miner, Ant Attack, The Lords Of Midnight, Turbo Esprit and Head Over Heels. The machine is also home to some fine coin-op conversions including *Bomb Jack, Chase HQ, Rainbow Islands, Renegade* and *R-Type*. There's a ton of top licensed stuff too, like *The Trap Door, Dan Dare, Tai-Pan, Cobra* and *The Great Escape*.

Beyond acquiring the best games, or the ones you remember from way back when, there are some nice mini-collections to aim for. An excellent one is the range of early games published by Sinclair that sported the iconic colour 'flash' motif. Most also featured striking inlay art. There were 38 cassette titles, plus a further ten on cartridge, making a rather fitting 48 in total. The carts are particularly collectable and command decent prices, as they were the only games released for Sinclair's Interface 2 add-on. Of the ten, the four from Ultimate are the most sought after.

Which brings us nicely to Ultimate and its Spectrum legacy. The renowned software house released games for most 8-bit computers, but the Spectrum was always its primary platform. There were 17

individual Spectrum titles in total, making it a very realistic collection target, although a few of the later titles, like *Martianoids* and *Bubbler*, are not as common so you'll need to fork out for them. It's surely worth it, as a complete Ultimate collection is a wonderful sight, with the impressive big box releases like *Saber Wolf, Knight Lore* and *Alien 8* forming the centrepiece. And to finish off the collection in style there's one final thing you need to add, but more on that in a few pages...

Ultimate sadly never released any games that took advantage of the Spectrum 128's extra capabilities, but a number of developers did and some of the early 128K-only games are attractive to collectors. You'll certainly see more interest around the 128K versions of *Ghostbusters* or *Three Weeks In Paradise* than the standard 48K releases. The same goes for +3 disk versions. Most software houses put games out on disk, but in the vast majority of cases they were exactly the same as the tapes, only with less painful loading times. There were a few exceptions, however. *North & South, Shadow Of The Beast, Golden Axe*

and various Level 9 adventures all featured elements that were exclusive to the disk version. *Magnetic Scrolls* went one further and ditched tape completely for all of its Spectrum games bar *The Pawn*, so classic adventures like *The Guild Of Thieves* and *Jinxter* are only available on disk.

One of the greatest joys of collecting Spectrum software is that you never really know what you might find. If you were to take a chance on a closed box full of games you'll probably find all of the usual suspects like *Horace Goes Skiing* and *RoboCop*, but lurking at the bottom might be that Ultimate game you've been searching for. Or, just maybe, there might be a super-rare, possibly self-published title that has yet to be archived at the awesome World of Spectrum (www.worldofspectrum.org). The website currently holds details on more than 10,000 games, yet that number includes around 1,000 that are thought to exist but have yet to be found in the wild. If even more people start collecting for the Spectrum then maybe, collectively, we can fill in all the gaps. Happy hunting.



The Collector's Guide

THE PERIPHERALS

» Microdrives have a deserved reputation for unreliability, but in 1983 they were a cost-effective method of saving data.



» Sinclair advertising supplements like this one provide an interesting look back into gaming's past, plugging all the latest games and peripherals.

ZX INTERFACE 1 & 2

To keep costs down, the original Spectrum was rather sparse around the back; there was no standard serial connector, joystick port or cartridge slot. Besides the TV and tape sockets, there was just an exposed edge of the motherboard to which various peripherals could be connected. But this was all part of Sinclair's grand plan, as in 1983 the company released the ZX Interface 1 and 2. These official add-ons were designed to make the Spectrum a more complete machine.

Sitting snugly beneath the computer, the Interface 1 peripheral was a real box of tricks. It provided the user with an RS232 serial connector for plugging in external devices like printers and modems, and a network connector for creating a LAN of up to 64 Speccys, presumably in a bid to get the computer into more classrooms. But the interface's real draw was that it enabled you to connect up to eight of Sinclair's Microdrive storage units.

Using cassette tapes to load and save data was slow, yet speedy random-access disk drives were prohibitively expensive, so the idea of a small and relatively cheap tape-loop cartridge system seemed like a typically astute Sinclair solution. Sadly, the device suffered from months of delays and when it was eventually released, users discovered that the tape in the cartridges could easily stretch or snap, thereby destroying precious data. It was also revealed that if the Spectrum crashed when writing to a cartridge the Microdrive would continue to whirl away and erase all of the data. So the reliability of the system was far from sound, yet the cartridges were cheap, so all the user had to do was make additional backups to one – okay, maybe two – further carts to safeguard against data loss.

Shortly after the release of the Interface 1 and Microdrive, Sinclair unveiled its second add-on. The Interface 2 was a much simpler affair aimed at the Spectrum's swelling number of gamers. It featured twin joystick ports and a slot for plugging in ROM

cartridges, effectively turning the computer into a plug-and-play console. Being able to connect two joysticks was a great idea and gave it an edge over competing joystick interfaces offered by the likes of Kempston and Fuller, but the cartridge slot was only able to deal with software up to 16K in size, thereby ruling out the vast majority of games designed for the 48K Spectrum. The ROM carts were expensive too, at two to three times more than the equivalent cassette version. Punters weren't prepared to pay the extra just to cut out a few minutes of loading time.

At the time of their release, neither interface could be described as a must-have, as there were third-party peripherals available that would probably suit your expansion needs better. But now, for the Sinclair enthusiast, these iconic add-ons are compulsory parts of any Spectrum hardware collection. Key to their appeal is that they perfectly complement the design of the original rubber-keyed computer, so when all of the official components are hooked up together, it really looks the business.

...AND THE REST

01. Kempston Joystick Interface

■ Every serious Speccy gamer needed a joystick, and in the early days there were several competing standards. The Kempston interface quickly emerged as the most popular and was supported by many commercial games. Once you had the interface, you just needed to add a Competition Pro or Zip Stick and you were away.

02. Multiface 3

■ This amazing device needs little introduction. Romantic Robot released several Multifaces over the Spectrum's lifetime, but it was this version, specifically designed for the +3, that was indispensable. With a touch of the magic red button you could back up your tape games to disk and more besides. Absolute bliss.

03. Fuller Box

■ While Spectrum 'beeper' sound has a certain charm, it was one area where the machine was lacking. The Fuller Box addressed this problem by including an AY-3-8912 sound chip – the same one that was later used in the Spectrum 128. It could be programmed by the user and was supported by several games.

04. Currah MicroSpeech

■ Make your Spectrum swear! This speech synthesiser was surprisingly popular, even though it was only fun for about five minutes. A decent number of commercial games supported the unit, including *Lunar Jetman* and *Hunchback*. Curiously, if you loaded *Booty* with it plugged in you'd get to play a hidden game.

05. Opus Discovery

■ There were a number of disk interfaces – Beta, Disciple, etc – that let you hook up a standard disk drive to a Spectrum. The Opus was an all-in-one solution that provided the user with one or two 3.5-inch drives, plus various ports and connectors. It was a high-quality, if expensive, piece of kit.

06. Magnum Light Phaser

■ Several lightguns were released for the Spectrum over the years, but this Sinclair-branded effort had the most impact, as it was bundled with the Spectrum +2 Action Pack. Amstrad also ensured that there was software to support it, including games such as *Operation Wolf* and *The Living Daylights*.

07. Saga Keyboard

■ A lot of people love the Speccy's rubber keys, but from a practical viewpoint only a sadist would want to prod them for any length of time. As with the ZX81 before it, third-party manufacturers like Saga and dk'tronics released replacement keyboards that screwed directly into the machine's casing, allowing relatively pain-free extended use.

01

02

03

04

06

05

07



The Collector's Guide

TOP 5 GAMES TO PLAY

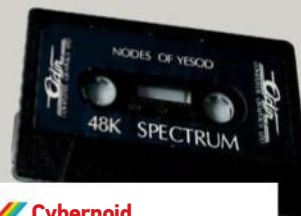
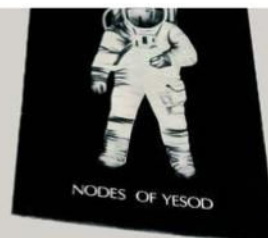
Dynamite Dan

■ Despite being overshadowed by *Manic Miner* and *Jet Set Willy*, *Dynamite Dan* was an aural and visual explosion of colour and sound that was chock full of nice touches. Tremendously playable and highly addictive.



Nodes Of Yesod

■ Yes, it's a bit like *Underwurlde*, but Odin's homage to *Ultimate* stands the test of time. With exploring, dodging the red spaceman and hunting for hidden rooms, *Nodes* was arguably more gratifying than *Underwurlde*.



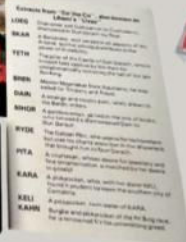
Starquake

■ Stephen Crowe's arcade adventure was another game presented in the style of *Ultimate*. Yet it was easy to see why *Starquake* was considered better than many of the games it seemed intent on imitating.



Dun Darach

■ This complex and testing graphic adventure from Gargoyle Games introduced great character interaction, making for a more immersive and atmospheric game than its predecessor, *Tir Na Nog*.

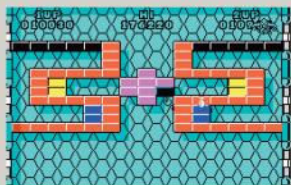


Cybernoid

■ *Cybernoid* wasn't a particularly original concept, but Raffaele Cecco's attention to detail, wonderful graphics and fast gameplay made for a game that you just couldn't put down.



PLAY THESE NEXT



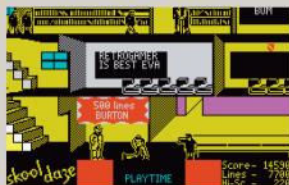
Batty

■ Despite starting out life as a freebie cover tape, *Batty* was the *Breakout* clone that topped them all. *Arkanoid* had been released earlier and the similarities were obvious – ingenious power-ups, aliens, etc – but what propelled *Batty* to the fore was the fantastic simultaneous co-operative two-player mode.



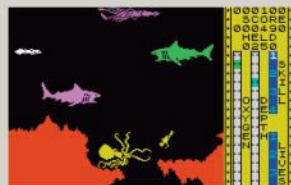
The Hobbit

■ *The Hobbit* was, for many Spectrum owners, their first experience of adventuring. With a story everyone knew, puzzles that weren't too cryptic to be unsolvable and a decent parser, *The Hobbit* remains a nostalgic favourite, even for those gamers who don't usually dabble with text adventures. Wait. Wait. Time passes...



Skool Daze

■ Microsphere's game was a triumph for originality and gameplay. As Eric you must steal your school report from the headmaster's safe by obtaining code letters from teachers, and to get these letters you have to knock them senseless with your catapult. Impish school kids across the land loved *Skool Daze*.



Scuba Dive

■ Durell Software's golden oldie is one that really hits the nostalgia spot. Whether it's the menagerie of sea life, getting lost looking for treasure and running out of air in the bewildering tunnels, or trying to creep past that giant octopus, it was always worth a play. Simple Spectrum gaming but executed brilliantly.



Manic Miner

■ Pixel-perfect jumping, 20 extraordinarily well-designed screens, inventive sprites, and all wrapped in a quirky sense of humour. It had a perfectly weighted learning curve that just egged you on to have one more go. *Manic Miner* was often copied but rarely surpassed as king of the Spectrum platform game.

TOP 5 IMPORT GAMES

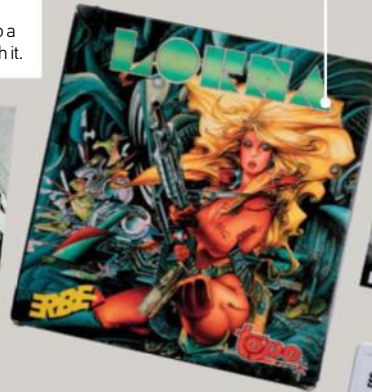
El Capitan Trueno

■ A side-scrolling arcade adventure of two parts. Being released by Dinamic it has all the usual hallmarks of that company's output: lovely graphics with great gameplay but also a hugely testing learning curve. Persevere with it.



Lorna

■ Lorna by Topo Soft was based on the creation of Spanish comic book artist Alfonso Azpiri. This was a side-scrolling beat-'em-up intermingled with Deathchase-style levels and proved to be immensely playable.



Cozumel

■ An illustrated text adventure from Aventuras AD, Cozumel was the first in the Ci-U-Than Trilogy, all of which were quite superb. You play as an archaeologist, and you've been shipwrecked and lost everything.



Satan

■ A game of two parts; the first sees you play a platform-jumping barbarian and by the second as a wizard with all the accoutrements required to give Satan a thrashing. Great monochrome graphics combine with Dinamic's typically hard gameplay.

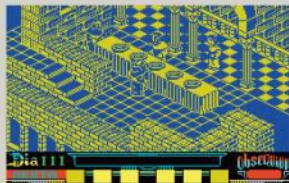


Soviet

■ This top-down shoot-'em-up from Opera Soft sees you in control of a Soviet tank exploring the cities of Vilnius and Baku, searching for hostages while fending off endless waves of enemies. Sounds dull, plays great.



IMPORT THESE NEXT



La Abadia Del Crimen

■ Umberto Eco's novel *The Name Of The Rose* appears on the Spectrum, but having not gained Eco's backing it was renamed *La Abadia Del Crimen* (*The Abbey Of Crime*). This isometric arcade adventure from Opera Soft was a great medieval whodunnit in which you solve the puzzles but must also obey abbey rules.



Zona 0

■ If the light bikes in *Tron* are your thing then you would love this 3D rendition of the game. A simple concept made better with the addition of the isometric graphical perspective, but it maintains the obligatory 'one more go' compulsion of the original 2D release. Released in Spain by Topo Soft.



Don Quijote

■ Dinamic's graphic adventure based on Miguel de Cervantes' books from the 17th Century, *Don Quijote* is the story of a man so obsessed with chivalry that he becomes unhinged and sets off on make-believe adventures. Written using Incentive's Graphic Adventure Creator, this adventure is hugely popular in Spain and deservedly so.



Mortadelo Y Filemon II

■ The Spanish certainly like their comic book adaptations, don't they? *Mortadelo Y Filemon II*, based on Francisco Ibáñez's series, was released by Dro Soft and is a very playable scrolling platform game played over two distinct levels, both of which contain some splendidly colourful and well-defined graphics.



Paris-Dakar

■ Zigurat's hugely popular racing game sees you in control of a rally car across three levels. You must also maintain your vehicle by purchasing refurbishments. With a low starting budget and big outgoings, you must also race well to gain sponsorship and the money required for your ongoing repairs.



The Collector's Guide

TOP 5 RAREST PAL GAMES

MacMan In The Treasure Caves

■ There were four *MacMan* titles released by Macmillan in total, and any one of them could have featured as they're all insanely difficult to find. Two things made the *MacMan* games the rarities they are: they sold poorly and they're educational games.



RoboCop 3

■ Ocean's third *RoboCop* game suffered a similar fate to US Gold's third *Indy* game: that of being released in a time when the Spectrum was becoming commercially unviable. It was a reasonably good game but not a patch on the first two *RoboCop* games.



Ship Of The Line

■ There are many examples of games from the formative days that are rare due to being low-volume bedroom-coded productions; even the bigger companies had to start somewhere. Case in point: Richard Shepherd Software with the entirely homemade release of *Ship Of The Line*, including handmade inlay and home-dubbed TDK tape.



Dalek Attack

■ Alternative's game is generally regarded as one of the last full-price Spectrum releases and the last licensed game on the system. This side-scrolling platformer sees you play the Doctor in the Sylvester McCoy regeneration, and the game is much like McCoy's Doctor: instantly forgettable. At least you got a Dalek sticker...



Bored Of The Rings

■ Some games have a very nomadic life. *Bored Of The Rings* has been released by Delta 4, GI Games and Zenobi. CRL then published it for just a couple of months before Silversoft took it on. While common on the Silversoft label, the CRL and Delta 4 variants are very rare.



GET THESE NEXT



Ballbreaker II

■ Another CRL rarity, but this one is entirely down to poor sales due to its banality. The sequel to *Ballbreaker*, an isometric *Breakout* clone that hardly set the world alight itself, suffered from brain-numbing slowness and a dodgy isometric perspective. Strictly for the collecting completists only...



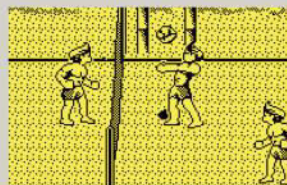
Indiana Jones And The Fate Of Atlantis

■ The third and final instalment of US Gold's *Indiana Jones* trilogy of games arrived in 1992, well into the twilight years of the Spectrum. Despite playing well, it sold in such disappointing numbers that its status as an instant collectable and rarity was virtually assured.



Specvaders

■ Hewson's *Specvaders* was released early in 1983 amid an avalanche of *Space Invaders* clones. Despite the choice, no one game stood out and dominated the sales. Sadly, *Specvaders* was largely anonymous and not helped by uninspired visuals and poor sales. Finding a copy will cost you a pretty penny. Just ask Steve Brown...



Beach Volley

■ You would think that a game touting sand, sun and ball games with scantily clad beautiful people sounds like a cracking afternoon's entertainment. Released by Ocean in the depths of winter 1989, it barely registered in the sales department. Once again, commercial failure triumphs in creating a collectable.



Sly Spy: Secret Agent

■ While the re-release of *Sly Spy: Secret Agent* is as common as muck, the original Ocean release is a real tough one to locate. Quite why that should be is anyone's guess, as it was a great game and actually sold reasonably well; certainly well enough to warrant resurrecting it for the budget release treatment.

THE JEWEL IN THE CROWN

What? A Spectrum collecting feature without an Ultimate title? Well, why have one when you can have almost the entire back catalogue on disk in one glossy package? Desirable and collectable in equal measure, it's the ultimate compilation...



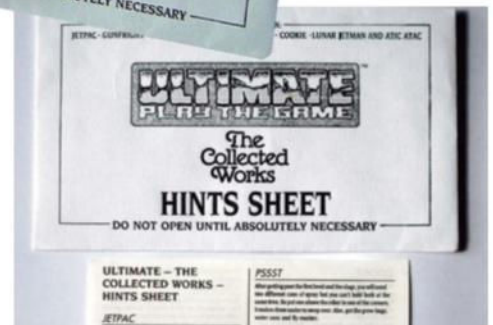
The games

■ Encompassing virtually all of Ultimate's Spectrum output bar those licensed to US Gold and *Underwurlde*, which was left out due to compatibility issues, this 11-game compilation was a must-have. From the early days of *Jetpac* through to the isometric magic of *Knight Lore* and beyond, there's not a dud game in the box.



The map

■ Frequently missing from the box when bought today, the map of Ultimatum was a previously unreleased illustration by the artistic Tim Stamper. Quite what its purpose was other than to brighten up your bedroom wall is unclear, but that unmistakable Ultimate style made it something to covet by default.



Pushing the envelope

■ The sealed envelope containing the hints sheet is the bane of the collector, as it's a perpetual absentee from *The Collected Works* nowadays. A leaflet containing highlights of a memorable interview with Tim and Chris Stamper conducted by Roger Kean of Newsfield's *Crash* magazine isn't always present either.



The Collector's Guide

✓ THE SINCLAIR ZX SPECTRUM GAMES YOU NEED TO OWN

180	☐
3D Starstrike	☐
Abadia Del Crimen, La	☐
Academy	☐
Ad Astra	☐
Airwolf	☐
Alien 8	☐
Alien Highway	☐
Alien Syndrome	☐
Android 2	☐
Antics	☐
Ant Attack	☐
Arcadia	☐
Arc Of Yesod	☐
Arkanoid 2: Revenge Of Doh	☐
Astro Marine Corps	☐
Atic Atac	☐
Back To Skool	☐
Barbarian	☐
Bard's Tale, The	☐
Barry McGuigan's World Championship Boxing	☐
Batman	☐
Batman: The Caped Crusader	☐
Batty	☐
Bionic Commando	☐
Bomb Jack	☐
Booty	☐
Boulder Dash	☐
Bounder	☐
Bounty Bob Strikes Back	☐
Brian Bloodaxe	☐
Bruce Lee	☐
Bubble Bobble	☐
Bugaboo (The Flea)	☐
Cabal	☐
Captain Blood	☐
Capitan Trueno, El	☐
Castle Master	☐
Cauldron	☐
Cavelon	☐
Carrier Command	☐
Chaos	☐
Chase HQ	☐
Chuckie Egg	☐
Cobra	☐
Codename Mat	☐
Combat Lynx	☐



Deathchase



Feud

Combat School	☐
Commando	☐
Confuzion	☐
Cybernoid	☐
Cybernoid 2: The Revenge	☐
Cyclone	☐
Daley Thompson's Decathlon	☐
Dan Dare	☐
Dark Side	☐
Dark Star	☐
Deathchase	☐
Deflektor	☐
Deus Ex Machina	☐
Dizzy	☐
Don Quijote	☐
Doomdark's Revenge	☐
Draconus	☐
Dragontorc	☐
Driller	☐
Druid	☐
Dun Darach	☐
Dustin	☐
Dynamite Dan	☐
Dynamite Dan 2	☐
Elevator Action	☐
Elite	☐
Enduro Racer	☐
Enigma Force	☐
Exolon	☐
Fall Guy, The	☐
Fairlight	☐
Fantastic Voyage	☐
Fantasy World Dizzy	☐
Fat Worm Blows A Sparky	☐
Feud	☐
Firefly	☐
Flying Shark	☐
Football Director	☐
Football Manager	☐
Footballer Of The Year	☐
Frankie Goes To Hollywood	☐
Full Throttle	☐
Gauntlet	☐
Ghost'N Goblins	☐
Glider Rider	☐
Great Escape, The	☐
Green Beret	☐
Gunfright	☐

Gryzor	☐
Gyron	☐
Gyroscope	☐
Hall Of The Things	☐
Harvey Headbanger	☐
Head Over Heels	☐
Heartland	☐
Heavy On The Magick	☐
Helter Skelter	☐
Herbert's Dummy Run	☐
Highway Encounter	☐
Hobbit, The	☐
Horace Goes Skiing	☐
Hydrofool	☐
Hysteria	☐
Hypersports	☐
Ice Breaker	☐
Ikari Warriors	☐
Indiana Jones And The Fate Of Atlantis	☐



Match Day II

Into The Eagle's Nest	☐
Jack The Nipper	☐
Jetpac	☐
Jet Set Willy	☐
Jinxter	☐
Joe Blade II	☐
Knight Lore	☐
Knight Tyme	☐
Kokotoni Wilf	☐
Kwik Snax	☐
Laser Squad	☐
Leaderboard	☐
Lemmings	☐
Lords Of Midnight, The	☐
Manic Miner	☐
Marsport	☐
Match Day II	☐
Maziacs	☐
Mercenary	☐
Midnight Resistance	☐
Mikie	☐
Monty On The Run	☐
Movie	☐
Mugsy	☐
Myth: History In The Making	☐
Nebulus	☐
New Zealand Story, The	☐
Night Shift	☐
North & South	☐

THE COLLECTOR'S GUIDE: SINCLAIR ZX SPECTRUM

EXTREMELY RARE

Games that have less than a few dozen known copies available.

VERY RARE

Very hard to come by. Expect to see only a couple of copies per year.

RARE

You should be able to source these in a reasonable amount of time.

UNCOMMON

You won't find them straight away, but you will after a search.

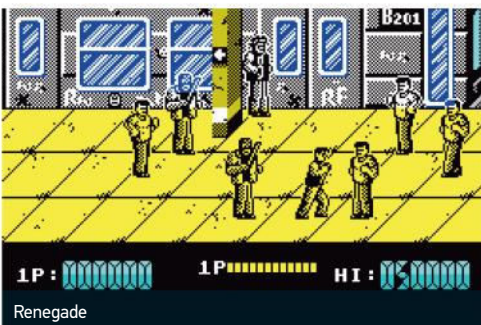
COMMON

Always just a click away for the average collector.

VERY COMMON

So common you'll find them in most bundles of games you buy.

Nosferatu The Vampyre	☐
Olli & Lissa	☐
Operation Thunderbolt	☐
Operation Wolf	☐
Paperboy	☐
Paris-Dakar	☐
Penetrator	☐
Pentagram	☐
Percy The Potty Pigeon	☐
Ping Pong	☐
Power Drift	☐
Price Of Magik, The	☐
Pyjamarama	☐
Pyracurse	☐
Quazatron	☐
R-Type	☐
Rainbow Islands	☐
Raid Over Moscow	☐
Ranarama	☐
Rebel Star	☐
Rebel Star II	☐
Red Moon	☐
Renegade	☐
Rick Dangerous	☐
Robin Of The Wood	☐
RoboCop	☐
RoboCop 2	☐
Rock Star Ate My Hamster	☐
Rocky Horror Show, The	☐
Rod-Land	☐
Roller Coaster	☐
Saboteur!	☐
Sabre Wulf	☐
Sacred Armour Of Antirad, The	☐
Satan	☐
Scuba Dive	☐
Sentinel, The	☐
Shadow Of The Beast	☐
Sim City	☐
Sir Lancelot	☐
Sir Fred	☐
Skool Daze	☐
Slap Fight	☐
Southern Belle	☐
Space Gun	☐
Spellbound	☐
Spindizzy	☐



Splat!	☐
Split Personalities	☐
Spy Hunter	☐
Spy vs Spy	☐
Starglider	☐
Starglider 2	☐
Starion	☐
Starquake	☐
Starstrike II	☐
Steve Davis Snooker	☐
Stormbringer	☐
Stormlord	☐
Strangeloop	☐
Stunt Car Racer	☐
Super Pipeline 2	☐
Sweevo's Whirled	☐
Switchblade	☐
Swords And Sorcery	☐
Tai-Pan	☐
Tapper	☐
Target: Renegade	☐
Tau Ceti	☐
Technician Ted: The Megamix	☐
Thanatos	☐
Theatre Europe	☐
Three Weeks In Paradise	☐
Thrust	☐
Thundercats	☐
Tir Na Nog	☐
TLL	☐
Total Eclipse	☐
Trailblazer	☐
Trantor	☐
Trap Door, The	☐
Trashman	☐
Treasure Island Dizzy	☐
Turbo Esprit	☐
Turmoil	☐
Turrican	☐
Turrican II	☐
Underwulde	☐
Untouchables, The	☐
Urban Upstart	☐
Virus	☐
Way Of The Exploding Fist, The	☐
Way Of The Tiger, The	☐
WEC Le Mans	☐
West Bank	☐
Wheelie	☐
Where Time Stood Still	☐
Who Dares Wins II	☐
Wizard's Lair	☐
Wizball	☐
Wiggler	☐
Xeno	☐
Yie Ar Kung-Fu	☐
Zombi	☐
Zona 0	☐
Zub	☐
Zynaps	☐

Collector Q&A

As well as his impressive Spectrum collection, Steve Brown is the founder of the TZX Vault project

■ What drew you to the Spectrum over other micros?
Manic Miner! I remember going to Blackpool around the end of 1983 and while wandering around a newsagent I saw a copy of *Personal Computer Games* with the mutant telephones screen on the cover. After reading the review, I had to have the game.

Just before Christmas my dad told me I was going to get a computer and wanted to know which one I wanted. Without any hesitation I picked the Spectrum and bought a copy of *Manic Miner* ready to play on Christmas morning. Luckily my dad bought me the 48K model!

■ When did you start collecting games seriously?
The serious collecting happened by accident. I already owned about 50 or so games back in 2000 when I started the TZX Vault preservation project. Around the beginning of 2001 I started buying games just to plug the gaps in my collection, so that's when it really started.

■ How many games are in your Spectrum collection?
I've never actually kept track of how many games I have but if I had to guess I'd say 5,000 plus. I've also got over 600 homebrew adventure games.

■ What is the most you have spent on a single Spectrum game?

I once spent £160 on eBay for *Specvaders* by Hewson Consultants, as it was the last of the original-style Hewson titles I needed.

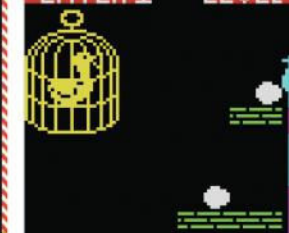
■ Have you any collecting preferences or quirks?
I collect games by Mikro-Gen across all formats. Before starting the TZX Vault, I bought some Mikro-Gen games from a local car boot sale, and it made sense to continue collecting Mikro-Gen games as I already had a head start!

■ Is there one particular game that is eluding you?
I'm after *Gnasher* by Mikro-Gen for the Spectrum. I have the ZX81 version called *Paint Maze* and the VIC-20 version called *Puckman*, but the Spectrum version is proving to be very elusive. The only mention of it I've ever seen was in one of the early issues of *Crash*, when it was reviewed.

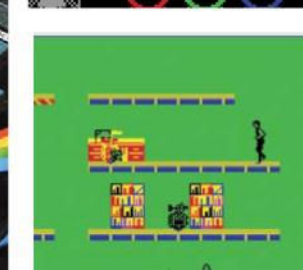
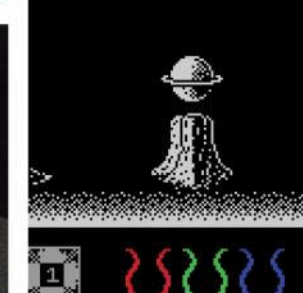
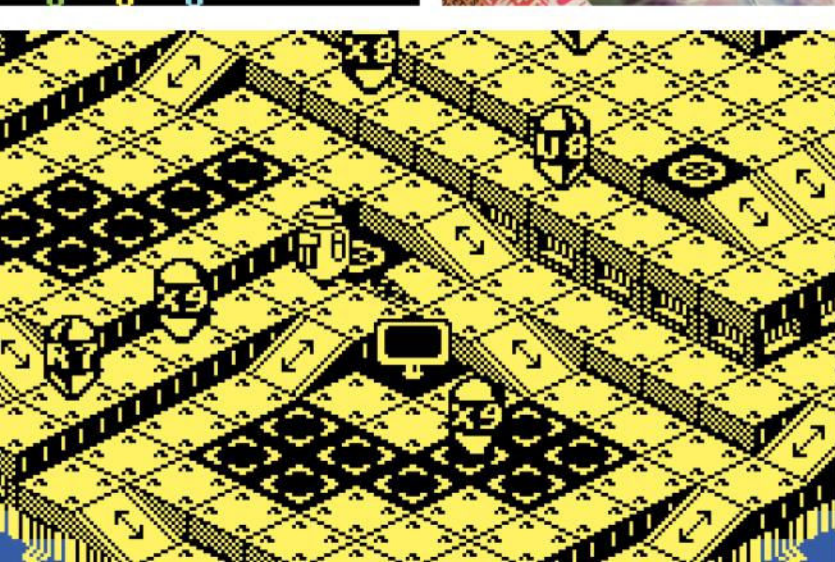
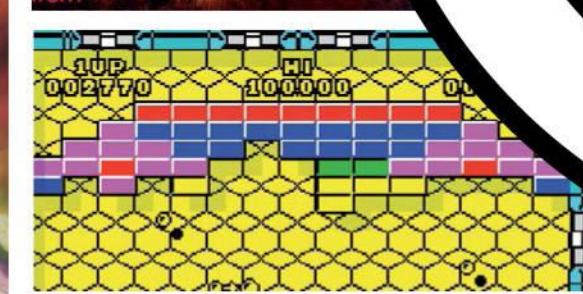
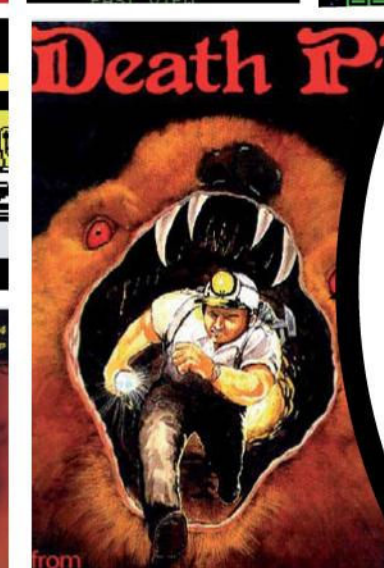
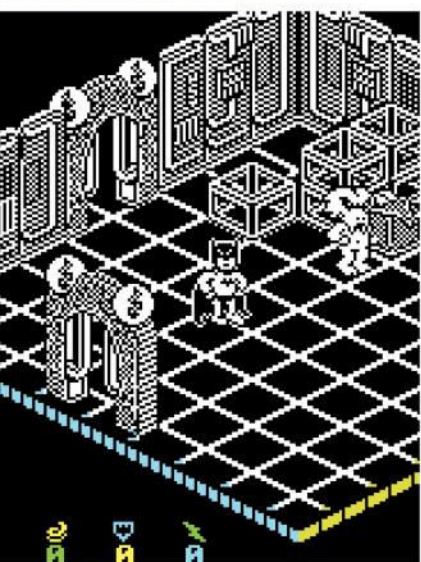
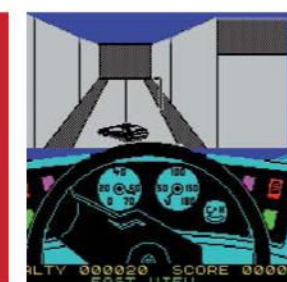
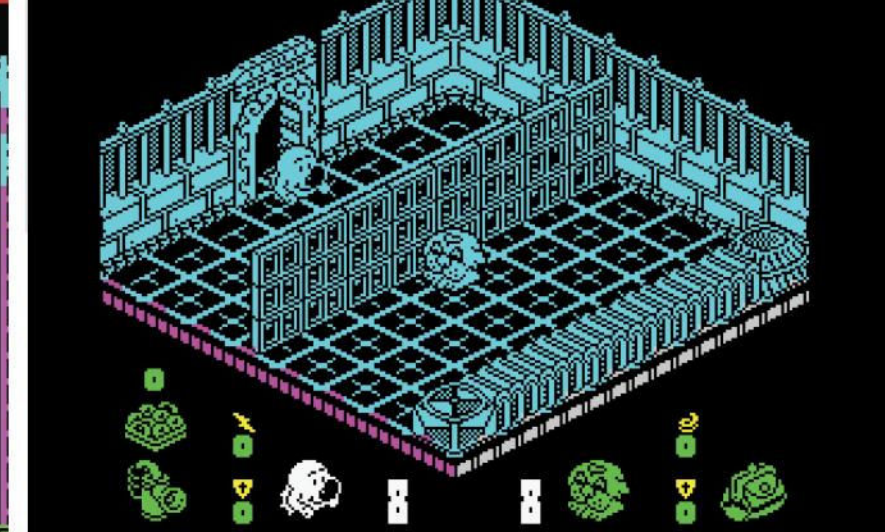
■ When did you start the TZX Vault project and why?
I began the TZX Vault project in February 2000. I knew of a few existing Spectrum preservation sites, however there was no central repository to store all the preserved material and there didn't appear to be any collaboration between sites, so I thought I'd try and organise the preservation effort. Luckily I managed to get Andy Barker, Paul Hurd, Tony Barnett and Martijn van der Heide on board very quickly, and the project took off from there.

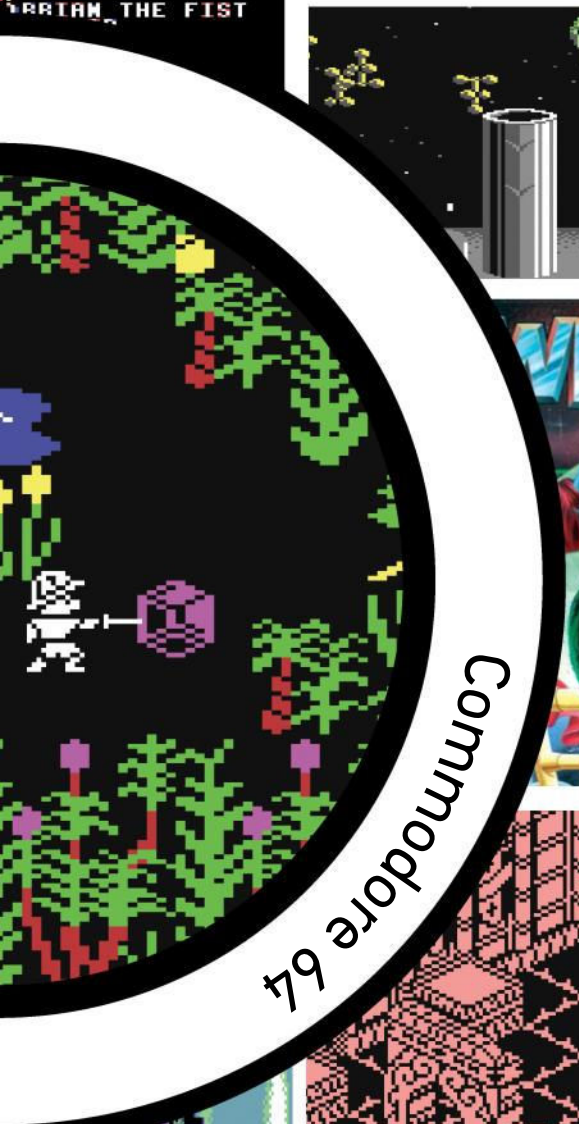
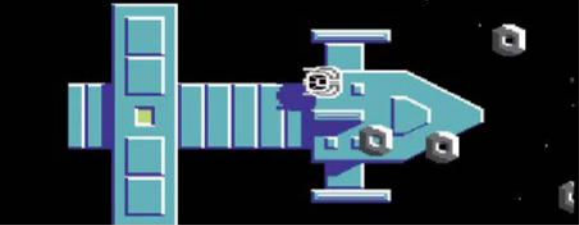
■ Any advice to new Spectrum collectors?
I'd say either stick with the popular titles or be selective. There are [over 10,000 games] in the World of Spectrum database. It's just not possible to own every single title ever released. I'd recommend going for the top 100 games as voted for by visitors to the WOS website.



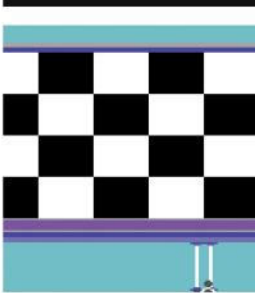
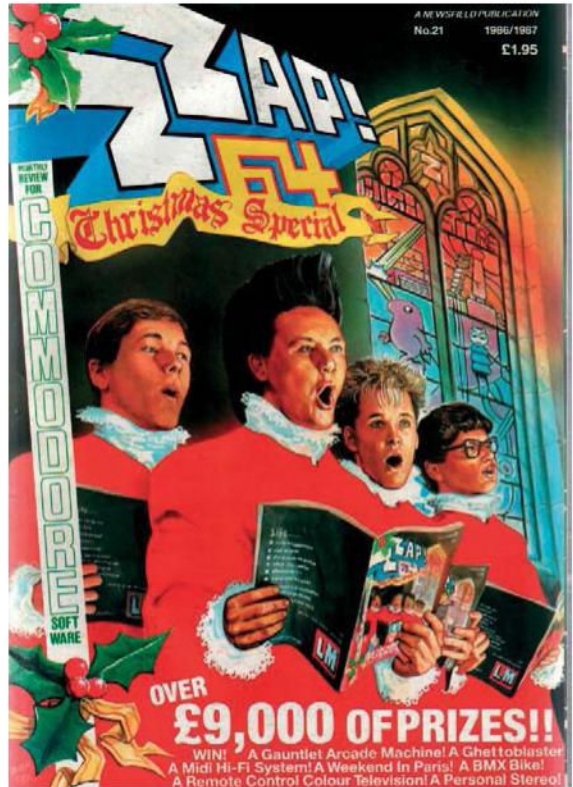


UXOR THE MOONPRINCE
He stands in the
forest of Shadows,
looking Southeast to
the Cavern of Shadows.





Commodore 64



From the makers of **retro**
GAMER

The Commodore 64 Book™

Over 190
pages of
8-bit
classics

The ultimate collector's guide



Classic games • Developer interviews • Rarest releases

Welcome to The Commodore 64 Book™

It's hard to believe that it's been over 30 years since the venerable Commodore 64 was first released. For us, it seems like only yesterday that we were playing genre-defining games like *Raid Over Moscow*, *Uridium*, *Paradroid* and *Wizball*, flicking through issues of *Zzap!64* and arguing blindly with our Spectrum and Amstrad-owning chums over who had the best machine. Some things never change.

While over three decades have now passed since the Commodore 64 made its debut, it remains a truly remarkable home computer, trailblazing its way through history thanks to its incredible SID sound chip, phenomenal library of classic games and huge support from both the US and European markets – a real rarity at the time.

In the *Commodore 64 Book*, we celebrate everything that was, and still is, brilliant about the machine, its games, and the people that made them. Whether it's looking back at some of the incredible music created with the SID chip, chatting with developers about how iconic games were made, or simply reliving some of our favourite C64 experiences, there is plenty within these pages to keep Commodore fans satisfied. Read on and enjoy.



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GAMER** magazine

The Commodore 64 Book™

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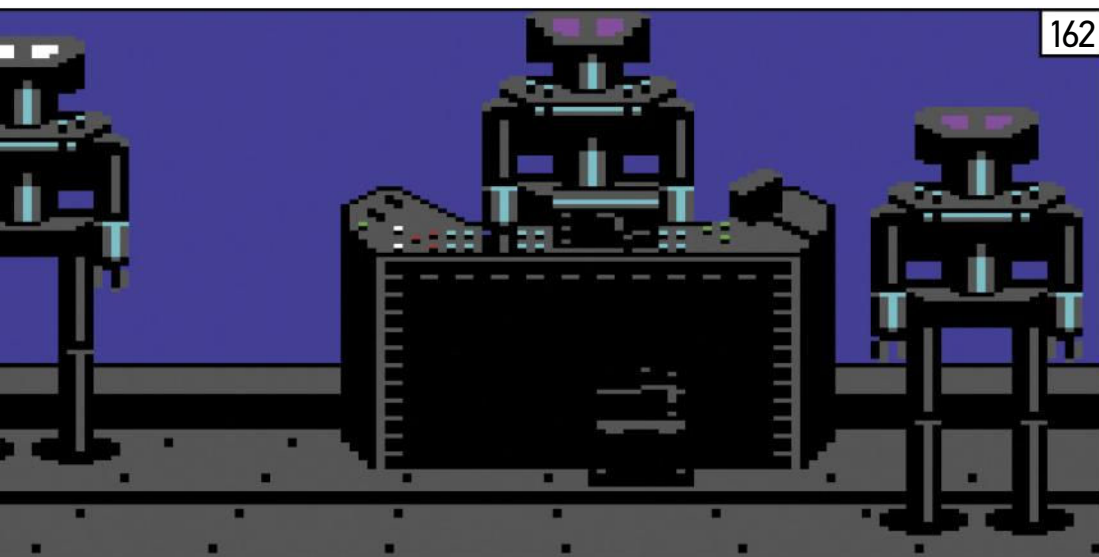
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GAMER
bookazine series





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GAMING

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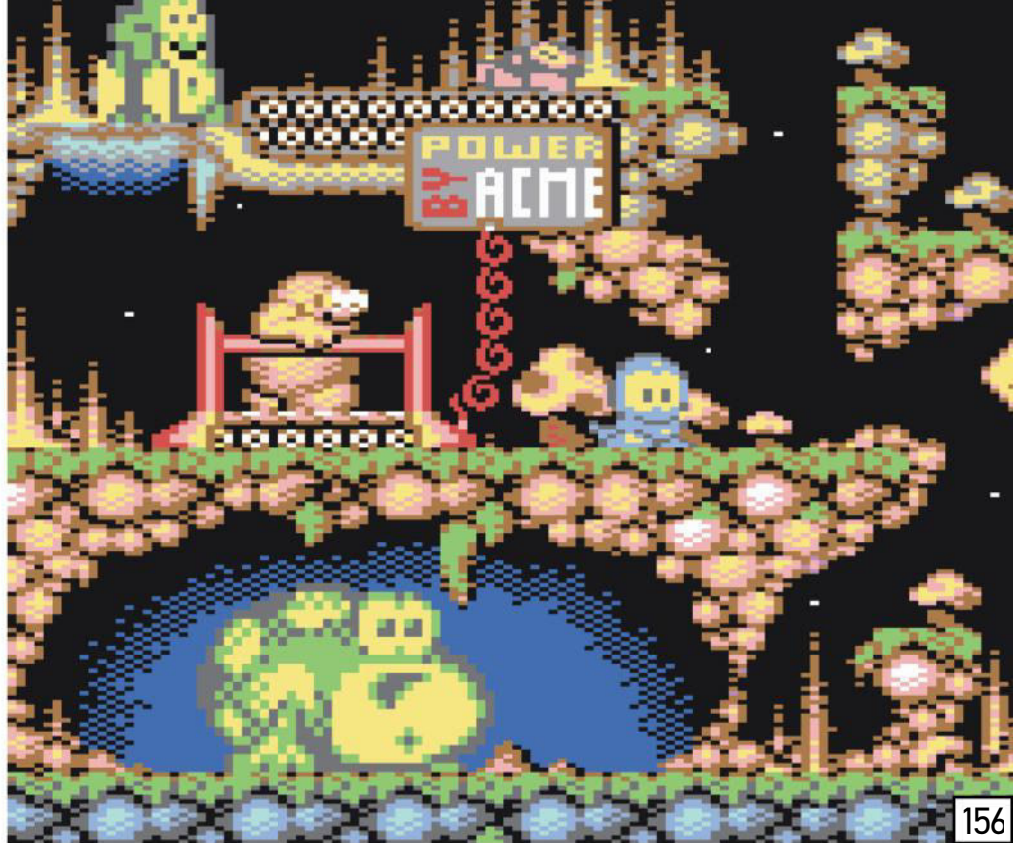
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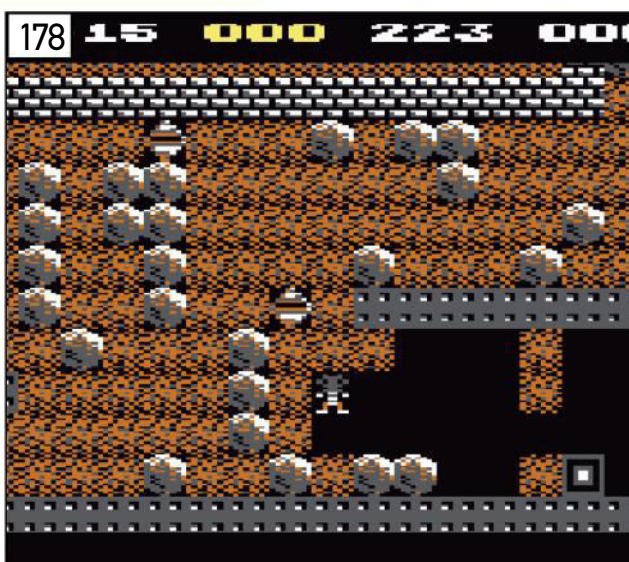
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Chances are, if you're a big fan of Commodore 64 music, you're a big fan of Ben Daglish. He's been behind a whole host of fantastic C64 tunes and was kind enough to discuss his past hits with us

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Something of a relic of the Cold War, this 1984 shoot-em-up is nonetheless a fantastic example of brilliant Commodore 64 game design

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Interested in collecting for Commodore's superb 8-bit home computer? This handy guide will reveal the best games and peripherals that every serious collector should own



INSIDE THE COMMODORE

The C64 was born to play games. Albert Charpentier and Yash Terakura tell Rory Milne how custom chips intended for a killer games console instead powered the world's bestselling computer



RE 64



» The controller ports on the Commodore 64 accept both joysticks and mice.

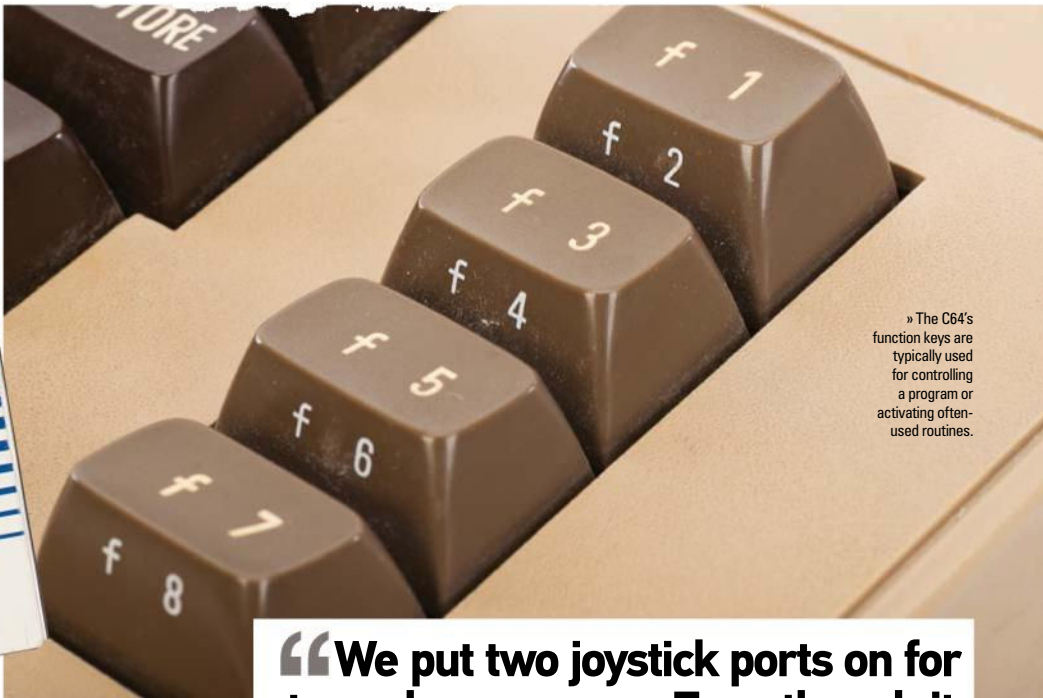
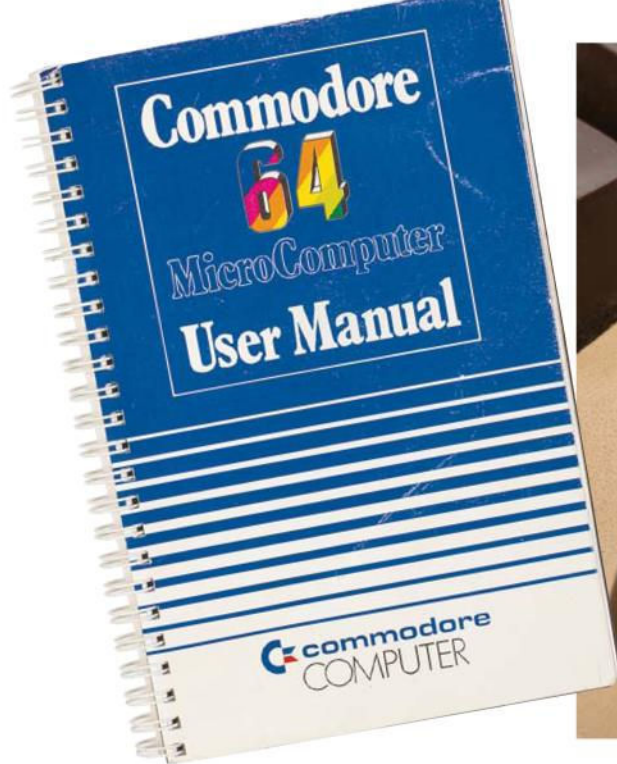


» This port allows you to place cartridges in your Commodore 64, such as the Final Cartridge III.

The story of the C64 is fundamentally one of two innovative chips created in 1981 at the Pennsylvania-based Commodore

subsidiary, MOS Technology. But the system's success was secured by a third chip and a leap of faith on falling memory prices. And the machine's dominance was ensured by Commodore boss Jack Tramiel obsessing over its cost and insisting on a quality keyboard sourced through his Japanese operation.

The Commodore 64's well-received predecessor, the VIC-20, had been delivered thanks to a similar balancing of cost and quality. MOS engineering manager Albert Charpentier was responsible for designing the VIC-20's video chip, which had first been pitched to console manufacturers. Albert's plan was to have another crack at the console market with a better graphics chip. "The VIC chip was done so I started to work on the VIC-II chip," Albert begins. "The original premise of the chip was: 'Ok, the VIC was good, but it wasn't good enough to entice the game community to buy into it.' We looked at different arcade games from Taito, Konami and Atari. We looked at the features those games had so that at least we would be able to imitate arcade graphics with the VIC-II. Processors back then weren't as capable as they are today. It was a struggle to smoothly move things across the screen so that's where we put in what we called the 'sprite concept' so you could simply define the character, put in an X and Y coordinate and it would appear wherever you wanted it. So it really supported the processor so that you could smoothly move objects around the screen."



» The C64's function keys are typically used for controlling a program or activating often-used routines.

► As Albert devised his custom graphics chip, MOS engineer Bob Yannes developed a complementary sound chip, the 'SID', which was inspired by synthesiser keyboards rather than computer audio chips. "Bob was really fascinated with music – his passion was audio. The VIC had some audio capability, but it was very minimal. Bob said: 'Why don't we make a full three or four voice chip that has all the fundamentals of a synthesiser keyboard?' So we essentially copied a lot of the things that were done in those keyboards; we didn't look at audio chips from our competitors," says Albert.

But Albert and Bob still needed to get the go-ahead from Jack Tramiel to develop their respective chips, which they secured with the support of Charles

Winterble. "Charles Winterble was a product engineer who was hired to get a better [chip] yield, we worked pretty closely together," continues Albert. "Charlie, Bob and myself presented the VIC-II and SID concept to Jack, [we said]: 'This is the next generation.' Our pitch was a really good games console. Jack said: 'Go ahead and work with the two chips. We will see what happens.'"

Just months later, however, impressive sales of the VIC-20 saw the pair switch from games console design to home computer development.

"Within six months, everyone saw it was going to be a computer. It was clear that the VIC-20 was a wonderful success – it sold, I think, close to a million units. So we said: 'Rather than doing a

“We put two joystick ports on for two-player games. Even though it was a computer I still wanted it to be a good games machine!”

Albert Charpentier

game console lets make this a better VIC-20.' So it would have better features. We looked at the whole memory management issue and things like that to make a more effective computer. The graphics were still a key part; it was going to be a home computer so it had to have entertainment features."

The sound chip that Bob Yannes was working on was just as important to the entertainment credentials of the VIC-20's successor – although its advanced nature was causing a few headaches. "It was the first time something like that had been done on a chip", explains

Albert. "It was really hard to get filters and frequencies, and try to create a true synthesiser. It was going to be a four-voice synthesiser, but the chip was too big and we had to cut it down to three."

Thanks to Jack Tramiel's keen eye for market trends, Albert next found himself reworking a variant of the 6502 processor used in the VIC-20 so that its successor could handle more memory. "Jack would come in once a month and we'd give him a report. 64K RAM chips were just becoming available, and Jack said: 'Listen, put 64K into it. Everyone is going to be producing that RAM, it's

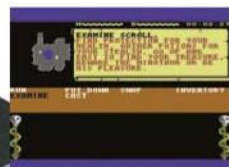
SID MAESTROS The six musicians who made the C64 sing

ROB HUBBARD MEMORABLE GAME: Master Of Magic



■ At times, the arrangements of Rob Hubbard's SID compositions

make them sound almost orchestral, although quite how this is possible given just three synthesiser voices to work with remains a mystery. Rob's *Master Of Magic* score spans multiple musical styles and techniques to great effect.



BEN DAGLISH MEMORABLE GAME: The Last Ninja



■ Preferring to freelance rather than work in-house, Ben Daglish was

nothing if not prolific during his C64 days. Ben produced over a hundred SID tunes, which typically get described as 'feel-good', but his often-understated work on *The Last Ninja* proves this to be something of a generalisation.



MARTIN GALWAY MEMORABLE GAME: Wizball



■ Likely remembered as much for the amazing sounds he

coaxed out of the SID chip as for his compositions, there's no doubting that Martin Galway made the C64 sing. Martin's *Wizball* title tune sees the C64 rock out to the synthesised strains of a weeping guitar with keyboard accompaniment.

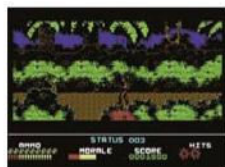


JONATHAN DUNN MEMORABLE GAME: Platoon



■ A late arrival to the professional SID music scene, Jonathan Dunn

took over from Martin Galway when he left Ocean Software in 1987. Jonathan's first gig at Ocean was side-scroller *Platoon*, for which he created a memorably atmospheric title tune. His body of work has a distinctive, clean sound.

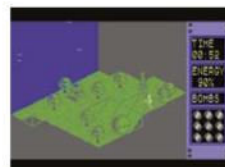


DAVE WHITTAKER MEMORABLE GAME: Glider Rider



■ Perhaps the busiest of all SID musicians; Dave has gone on record to say

that he has wrote tunes for over 400 C64 games. Dave's SID tunes have a uniquely 'electronic' sound reminiscent of the music that pervaded the pop charts of the Eighties and typified by his upbeat *Glider Rider* title music.



MATT GRAY MEMORABLE GAME: Last Ninja 2



■ Like Jonathan Dunn, Matt Gray arrived late to the SID tune party in 1987,

but he made up for lost time with epic compositions for the likes of *Driller*. An exclusive contract with System 3 and arguably Matt's finest SID work followed with his *Last Ninja 2* soundtrack. Matt is working on remastering his work.



INSIDE THE COMMODORE 64

The low-down on the C64's key components

CASSETTE PORT

■ Slightly redundant in the US where the preference was for disk drives, the C64's cassette port was essential in the UK where cassettes were the primary storage format for games.

RF MODULATOR

■ Although the C64 has a video port that supports compatible monitors, thanks to its RF modulator, the system also offers the cheaper option of using a TV set as a means of display.

VIDEO CHIP

■ The multi-coloured sprites that define C64 gaming are produced and managed by the VIC-II. Albert Charpentier designed this custom graphics chip to emulate arcade visuals in the home.

RAM

■ Typically filled to its 64K capacity when in the hands of a seasoned games developer, the C64's RAM is best thought of as a largely empty space used to load software into.

ROM

■ Essentially the C64's permanent storage space, in gaming terms, the ROM stores the BASIC language used to load games and the font used to display commands like 'LOAD' and 'RUN'.

CPU

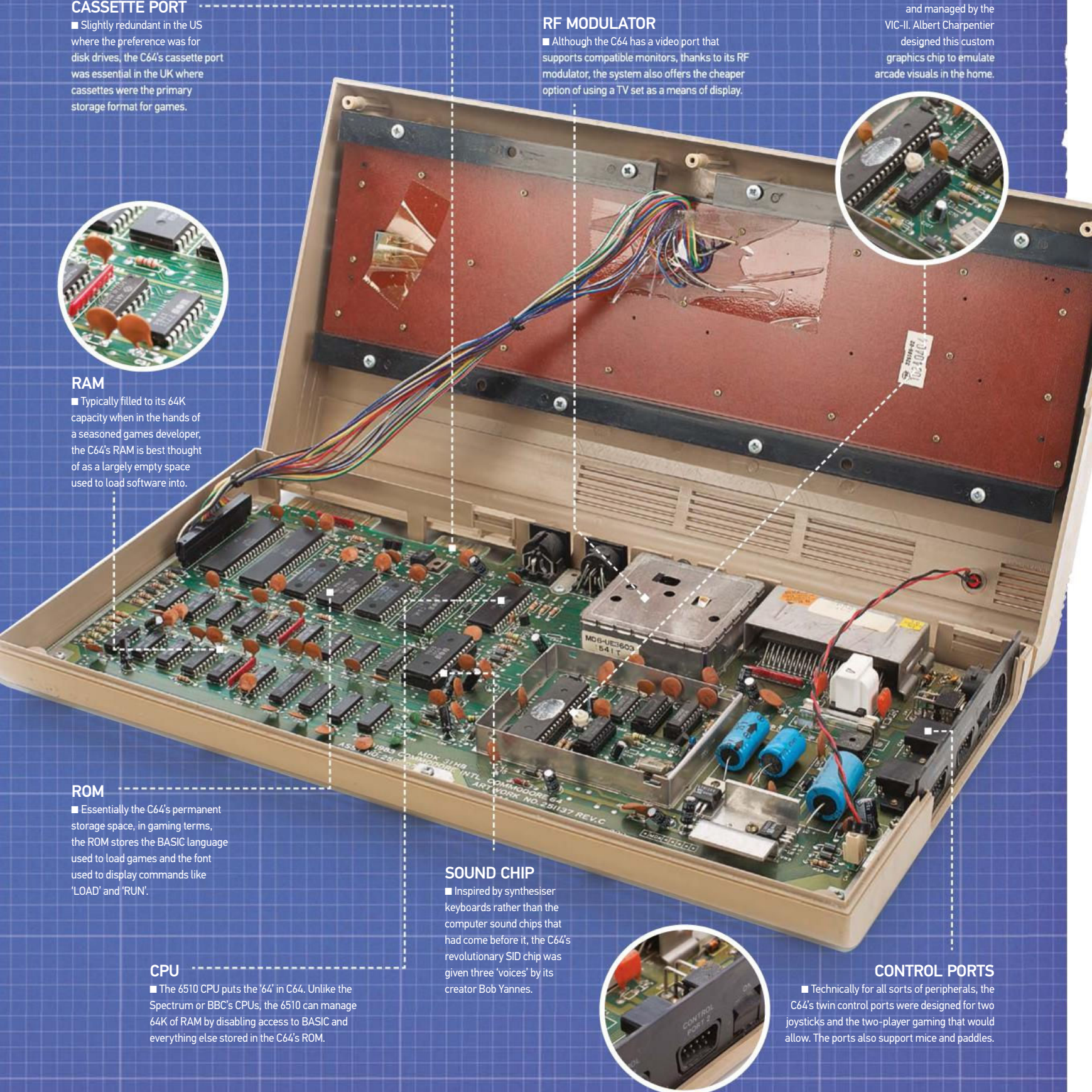
■ The 6510 CPU puts the '64' in C64. Unlike the Spectrum or BBC's CPUs, the 6510 can manage 64K of RAM by disabling access to BASIC and everything else stored in the C64's ROM.

SOUND CHIP

■ Inspired by synthesiser keyboards rather than the computer sound chips that had come before it, the C64's revolutionary SID chip was given three 'voices' by its creator Bob Yannes.

CONTROL PORTS

■ Technically for all sorts of peripherals, the C64's twin control ports were designed for two joysticks and the two-player gaming that would allow. The ports also support mice and paddles.





» Albert is currently involved in developing electronic devices for the renewable energy market.

► going to get very cheap and it would be a great marketing position.' The 6502 could only address 64K, and that had to be ROM, RAM, video stuff and so forth. So that started the design of the 6510 where you could bank-switch pieces of memory around [to] access the hidden 32K of RAM underneath the ROM."

Of course, three custom chips and 64K of RAM don't make a computer, and so Albert started on a circuit board to accommodate these and other components. As more engineers joined the project, their prototype became known as the VIC-40. "It was the VIC-40 initially because the VIC-20 had 20 characters on the screen versus the VIC-40 which was going to have 40 characters," Albert continues. "The VIC-II chip was done, but Bob was still working on the SID. So I started working on the PCB and getting the schematics and everything ready for that. When Bob finished up the SID he started working with Bob Russell to put together the final



» The AV Jack is on the left, while the serial port on the right handles devices such as printers and disk drives.

touches on the architecture and work up the software. Dave Ziembicki was the technician. Bob Russell basically took the VIC-20 software and remade it for the VIC-40. We put the two joystick ports on for two-player games. I loved games – so even though it was going to be a computer I still wanted it to be a good games machine!"

Good progress was being made, but a decision by Jack Tramiel in late-1981 would see Albert and his engineers working around the clock to finish the VIC-40 by the New Year. "Jack really wanted us to have something at the January CES in 1982. We worked like maniacs. The SID chip was a little bit behind schedule, but Bob Yannes was killing it and Bob Russell was trying to get the software done. Marketing did not learn about the VIC-40 until probably November. I think Jack was worried that they would get excited about this new

product and not focus on selling the old stuff. I got the first silicon right before Christmas and then I found a bug in the video chip that wouldn't allow the sprites to smoothly move over the background. They had to redo the masks and run the entire chip through the process in the [chip] fab downstairs. They did that over the Christmas vacation. They got us the chip around the first of the year. We carved up a VIC-20 case to fit everything in and painted it up – it was insane!"

By the January 1982 CES, the VIC-40's name had changed and Jack Tramiel had received a demonstration of the 'C64' and approved its presentation at the show. "I think that Jack understood that if the presentation was mediocre you would never be able to win back that excitement. If the demonstration software wasn't right he would have probably pulled it from the show. I liked the name change since it distanced it from the VIC-20 – the C64 was going to be so far superior. I remember that CES very well – it was a whirlwind! We were introducing this product that we had just spent 18 months developing, and it was just fantastic. We showed two things. I remember one side of the booth was showing the C64 doing computer-like



» As you'd expect, this lights up when your Commodore 64 is turned on. Don't accidentally unplug it!



C64 COMPARISON CHART The key stats of the C64 and its UK competition

				
	C64	Spectrum 48K	BBC Micro	Amstrad CPC
UK Launch Date	September 1982	April 1982	December 1981	June 1984
UK Launch Price	£350	£175	£335	£249 (with green screen monitor)
Processor	6510 @ 0.985 MHz	Z80A @ 3.5 MHz	6502 @ 2 MHz	Z80A @ 4 MHz
RAM	64 KB	48 KB	32 KB	64 KB
Display modes	320x200, 160x200	256x192	160x256, 320x200, 320x256, 480x500, 640x200, 640x256	160x200, 320x200, 640x200
Colours	16	8	8	16
Sound	3-channel synthesiser	Internal speaker	3-channel sound chip	4-channel sound chip
Keyboard	Typewriter	Membrane	Typewriter	Typewriter
Joystick Ports	2	0	2	1



INSIDE THE COMMODORE 64

» Numerous games and applications were released for the Commodore's disk drive peripheral.

» The Commodore 64's keyboard is pleasingly chunky and very sturdy. Ours still works today.

“There was a lot of pressure to get [the C64] out because clearly the VIC-20 stopped selling once people knew that it was coming”

Albert Charpentier

stuff and the other side of the booth had a couple of C64s doing games stuff. I remember that it was being described as: ‘A computer that can play great games.’ When Jack saw the level of excitement that’s when he went: ‘Ok, we’re going full-board for this thing.’”

Following the CES, Albert’s small team became the nucleus of an industrious company-wide effort to get the C64 into production. “Basically the team was expanded, we got a lot of help from the manufacturing team in Santa Clara. Yash Terakura was very important in that role. He was moving [the C64] out of the lab – out of the prototype – and getting it into manufacturing in Japan. Charlie Winterble was running with our designs and working with the rest of the company so that we could manufacture it. Charlie was essentially a project manager for the whole thing.

Commodore had a PCB line in Santa Clara where the C64s were built initially. I stayed up there for a few weeks while they brought it up and

started making it in volume. Bob Yannes was with me on that as well. Bob Russell was responsible for migrating the software from the VIC-20 over to the C64. Details all had to be worked out now that we weren’t just building one of them, we had to build a million of them.”

As part of its production process, the C64 received a distinctive brown case, which Albert remembers as being the most expedient design choice.

“Yash Terakura took my PC board – that went right into manufacturing. Yash was involved in putting it in the case. Yash did work at the periphery during the PCB development, but his job was mainly to get the whole thing moving into Japan because the higher volume manufacturing of cases was all in Japan. The VIC-II video chip got pretty hot, so when we put it in we had a little foot that came down and that touched on the chip – this would act as a heat sink. That became part of the FCC shield. The only case that was available that we could actually use was the VIC-20 case, so we modified that. We had to go quickly, and it was available and the right size. We essentially gutted the inside, but the outside was still pretty much the same.”

The Japanese-born, US-educated Yash Terakura has memories of working on the C64 in both countries – first with Albert’s team and then managing production of the C64’s case and keyboard in the Far East. “I moved to the US to help finish the final production model C64. I helped lay out the PCB, locate and approve parts, and do testing. I was handling all aspects of C64 engineering between the US and Japan. The housing was made based on the production PCB. The mould was the same as the VIC-20 – just with a simple colour change – and it was done in Hong Kong, but the injection was done in Japan. I did work with a design engineer in Japan, Mr. Nishimura, on details such as ventilation and the locations of the input/output ports. Mitsumi was the [keyboard] supplier; we used the [VIC-20] keyboard.”

Although he didn’t have a hands-on role in the production of the C64, Jack Tramiel did manage its costs and curbed Albert’s desire for more expensive parts. “I remember working with [Jack]; he’d come in every two weeks or so and we’d go over the bill,” recalls Albert. “It was always a fight because I wanted to put a better quality something in. He went through every penny on that bill. He was figuring on making millions, and I remember him saying to me: ‘It’s a million pennies, if you don’t want a million pennies I’ll take [them]!’”

In keeping with Jack’s cost-conscious approach was a fateful marketing

decision that forced Albert to pair the C64 with an slow disk drive. “[Marketing] decided to use the VIC-20 disk drive. [There was] a whole warehouse full and they were slower than hell! Right towards the end, we were forced to put on an interface for these drives so that they could sell them off. We wanted a higher speed drive but got shot down on that one.”

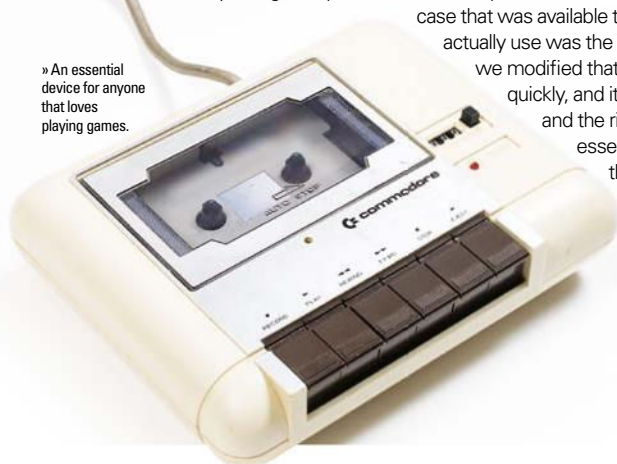
Albert’s recollections of the final stages of the C64’s production are of the pressure to get the system released and the elation that followed. “There was a lot of pressure to get it out because clearly the VIC-20 stopped selling once people knew that it was coming. But we had a lot more resources by then so it was just that everything had to come together. I think the C64 finally got into production in May [1982.] I felt wonderful! I mean, you spend a couple of years of your life bringing something together that you dreamed about that has finally reached a point of reality – and people liked it!”

When asked to look back at the C64, Yash Terakura offers a succinct and humble analysis of the system. “The design was pretty much limited to the availability of electronic parts; we had to design with what we had and we had to make it cheap. It was fun designing a computer in the old days. I can safely say that I did my best at that time.”

Albert Charpentier’s final words on the C64 are to give credit to the late, and great, Jack Tramiel and reflect on the millions that the system defined home computing for. “Jack Tramiel simply gave us free reign to do whatever we needed to do, and we executed. I give Jack a lot of credit; he gave us that target price, which we had to hit. It was him who had the guts to say 64K. He felt he could still hit the price point that we needed to hit, which is obviously why we were fighting over pennies every day. The C64 just took the world by storm at that price. I really feel that it introduced so many people to computers that may not otherwise have been introduced to them as quickly as they were.”

Thanks to Albert and Yash for telling the story of the C64.

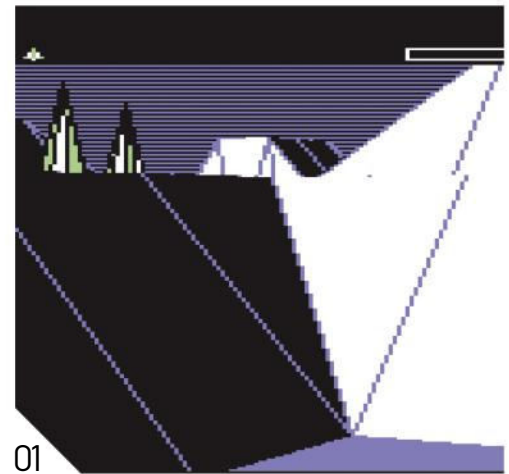
» An essential device for anyone that loves playing games.



commodore 64

PERFECT TEN GAMES

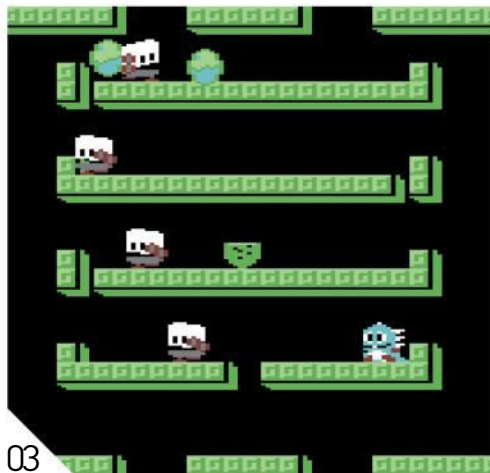
The Commodore 64 has a staggering selection of great games across a number of different genres, so choosing a top ten was always going to be a tricky process that required a lot of thought. Below then are a selection of the best games on the system. How many of them have you played?



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THE SENTINEL

- » RELEASED: 1986
- » PUBLISHED BY: FIREBIRD
- » CREATED BY: GEOFF CRAMMOND
- » BY THE SAME DEVELOPER: STUNT CAR RACER

01 Geoff Crammond's name may be synonymous with racing games, but when he wasn't pouring his heart and soul into his latest *Grand Prix* title, he was adept at turning his hand to all sorts of different genres, with *The Sentinel* being a perfect example of his handiwork. Haunting and with a meticulously designed game engine that excels at giving a tremendous sense of scale and depth, Crammond's *Sentinel* was one of the best strategy games available on the C64 – although to be fair, it initially appeared on the BBC Micro – and even today it offers a worryingly addictive challenge. Best of all, the beauties of emulation mean that you no longer have to endure those lengthy screen loads all the time. What a result!

IK+

- » RELEASED: 1987
- » PUBLISHED BY: SYSTEM 3
- » CREATED BY: ARCHER MACLEAN
- » BY THE SAME DEVELOPER: MERCURY

02 There had been previous games involving the slamming of bodily appendages against each other, in a sweaty contest of stamina and skill, but it was Archer Maclean's *IK+* which was first to ménage-à-trois with the concept – metaphorically speaking. It revolutionised the mechanics of games like *Way Of The Exploding Fist* and *Karate Champ*, and also incredibly well on the humble C64. Music was by Rob Hubbard and while there was only one background, it was filled with many clever Easter Eggs (those joyous bonuses you could spend months discovering). The fluidity of control made it easy to initially play, but this was backed-up by a complex system which rewarded continued practice. A classic.

BUBBLE BOBBLE

- » RELEASED: 1987
- » PUBLISHED BY: FIREBIRD
- » CREATED BY: SOFTWARE CREATIONS
- » BY THE SAME DEVELOPER: SLY SPY: SECRET AGENT

03 There have been plenty of classic coin-op conversions on the Commodore's mighty 8-bit, but *Bubble Bobble* ranks as one of the best to make the jump. From its cute, vibrant – if slightly squashed looking – visuals to the outstanding, bouncy music, the C64 managed to perfectly capture the spirit of the original arcade hit and proved to be the perfect game to show-off to your Spectrum and Amstrad owning mates. It might not feature all of the secrets that appeared in the original arcade game and having to press up on the joystick in order to jump is no substitute for a proper, dedicated fire button, but if you're looking for an extremely competent conversion of a classic arcade hit, look no further. A superb conversion that shouldn't be missed.

MAYHEM IN MONSTER LAND

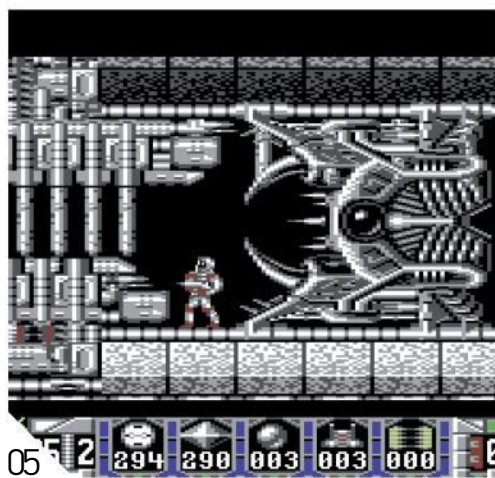
- » RELEASED: 1993
- » PUBLISHED BY: APEX COMPUTER PRODUCTIONS
- » CREATED BY: CREATURES 2
- » BY THE SAME DEVELOPER: CREATURES

04 There was no question of this not making the Top 10, what with it being regarded by many as the C64's last great release both in terms of gameplay and sheer technical achievement. As most already know, it infamously used a "bug" in the graphics chip, which allowed entire screen scrolling and therefore much smoother and faster gameplay. Despite being a C64 title it has all the speed and tactile control you'd expect from an early 1990s platformer, which not only guarantees it a place here but also means it's still great to play even today. Being a dinosaur and returning colour to the land has never been such fun.

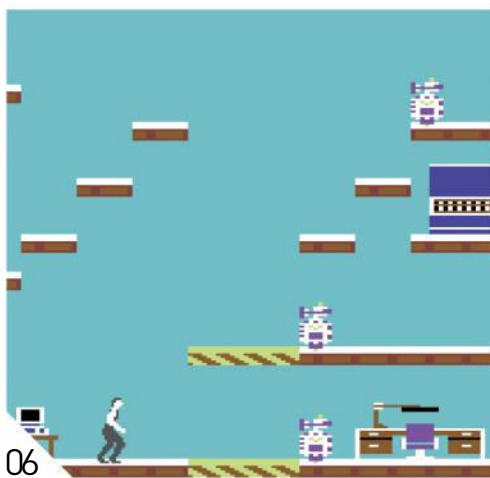
TURRICAN

- » RELEASED: 1990
- » PUBLISHED BY: RAINBOW ARTS
- » CREATED BY: MANFRED TRENZ
- » BY THE SAME DEVELOPER: THE GREAT GIANA SISTERS

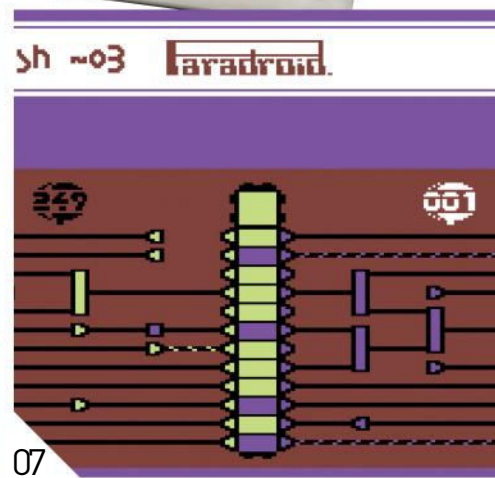
05 There's an unwritten law in videogames that states: all C64 lists must feature at least one Manfred Trenz game. While many will no doubt argue that Trenz's *Turrican II* is clearly the better game, we've decided to stick with the original, mainly because there was nothing quite else like it when it first appeared in 1990. It may well have borrowed heavily from obscure coin-op *Psycho-Nics-Oscar*, but Trenz's technical wizardry of Commodore's machine simply blew us away, and it still manages to impress today. Part platformer, part shooter, *Turrican* features incredible visuals, a stunning score by music maestro Chris Hülsbeck and some of the most frenetic gameplay around. It fully deserves every accolade that has been bestowed on it.



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IMPOSSIBLE MISSION

- » RELEASED: 1984
- » PUBLISHED BY: USGOLD
- » CREATED BY: DENNIS CASWELL
- » BY THE SAME DEVELOPER: PHASER PATROL

06 We featured a Making Of article on Dennis Caswell's timeless classic in Issue 22 of Retro Gamer, so by now all of you should have had a chance to experience this classic game. *Impossible Mission* was a perfect blend of joystick waggling dexterity (especially when avoiding the terrifying spheres of floaty-electric-death), and also tricky puzzles (many had problems with the final password-piece assembly). Although its premise of searching furniture (to find those elusive passwords) and avoiding robots may sound nauseatingly simple, it made for a game, which was easy to get into but difficult to put down. Although ported to several other systems, for us the C64 original is still the best version.

PARADROID

- » RELEASED: 1985
- » PUBLISHED BY: HEWSON
- » CREATED BY: ANDREW BRAYBROOK
- » BY THE SAME DEVELOPER: URIDIUM

07 Ask any C64 owner to name their favourite games, and chances are that this superb effort from Andrew Braybrook will almost always make their top five. Taking control of a weak prototype droid, your aim is to simply clear each boarded spaceship (of which there are eight) of its out-of-control robots. While your droid is woefully underpowered (even Dusty Bin could have it in a scrap) it does retain the unique ability to transfer itself into any available droid (albeit for a limited amount of time). This enables it to take out the ship's more dangerous foes (via a charming mini-game) and adds an interesting play mechanic. With its subtle blend of strategy and blasting, *Paradroid* is a true classic, and deserves to be in every C64 owner's collection.

WIZBALL

- » RELEASED: 1987
- » PUBLISHED BY: OCEAN
- » CREATED BY: SENSIBLE SOFTWARE
- » BY THE SAME DEVELOPER: PARALLAX

08 Playing *Wizball* was a rite of passage for many Commodore 64 owners and became more than ample ammunition for those who wanted to taunt their CPC and ZX Spectrum owning peers. Insanely smooth scrolling, a scintillating soundtrack from the always dependable Martin Galway and its slick blending of genres means that *Wizball* will forever remain within the higher echelons of Commodore 64 classics. It might well have taken a while to get used to your ball's incessant bouncing motion, but once you finally mastered it and collected a few power-ups *Wizball*'s true identity and depth are revealed. It is, quite possibly, one of the most beautifully crafted C64 games that you'll ever have the privilege of playing.

PROJECT FIRESTART

- » RELEASED: 1989
- » PUBLISHED BY: DYNAMIX
- » CREATED BY: ELECTRONICARTS
- » BY THE SAME DEVELOPER: RISE OF THE DRAGON

09 Many games claim to have pioneered the survival-horror genre but, while others certainly came before it, *Project Firestart* is one of the very best examples of the early genre, and is still supremely enjoyable today. Your task is to dock with a research vessel in space and find out why there's been no communication. From the start, when you see the body of a dead crewmember who has written the word "danger" in their own blood, you know it's going to be an incredibly tense mission with plenty of twists and turns. Throughout the ship are mutilated bodies, log reports, even a survivor; then you encounter the terrifying invisible enemies, which randomly appear. Multiple endings guarantee regular returns to that hellish place.

ZAK MCKRACKEN AND THE ALIEN MINDBENDERS

- » RELEASED: 1988
- » PUBLISHED BY: LUCASARTS
- » CREATED BY: IN-HOUSE
- » BY THE SAME DEVELOPER: MANIAC MANSION

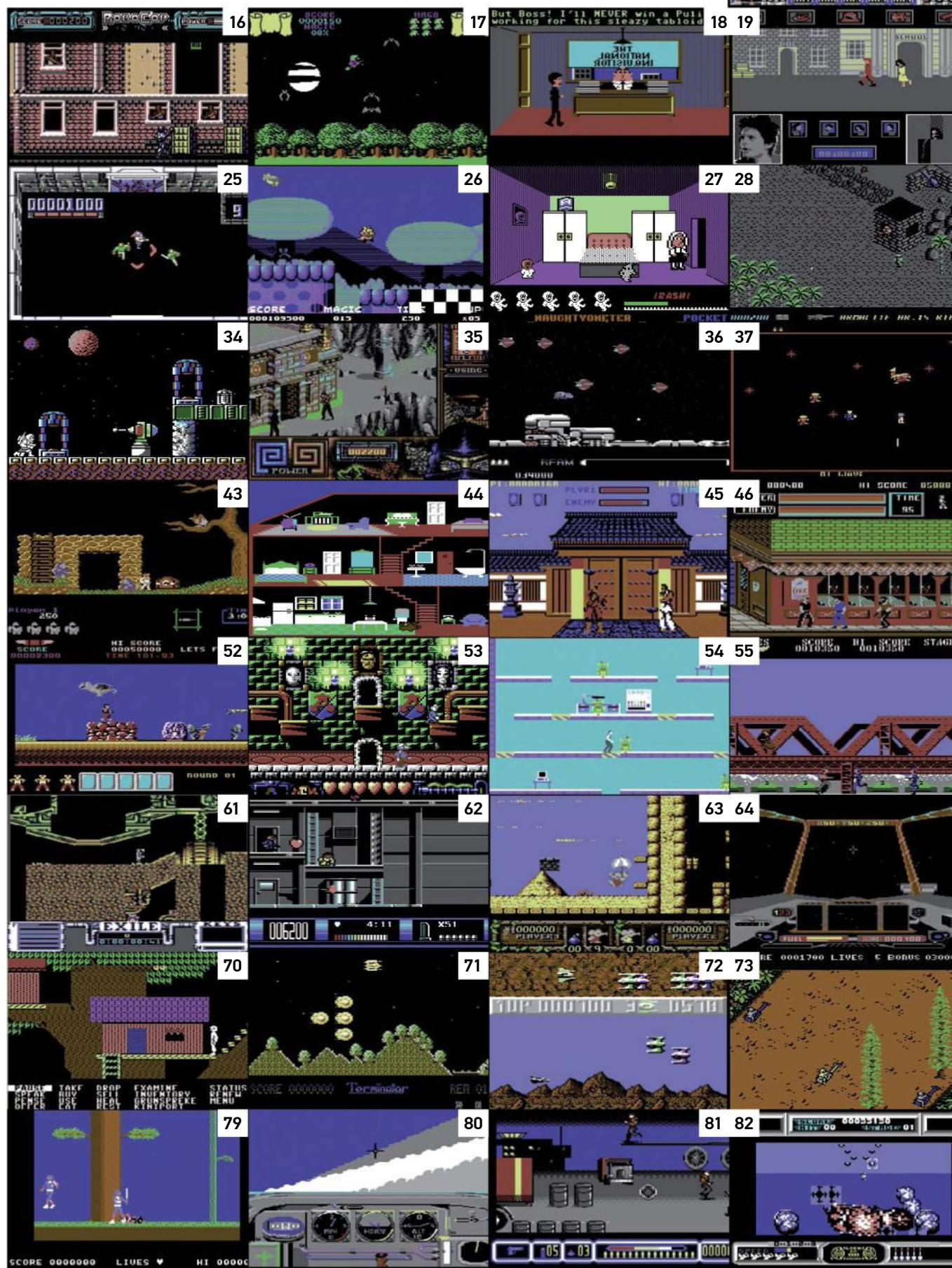
10 It's only fair that we list one of Lucasarts' excellent games here. But we can already hear a great disturbance, as if millions of voices suddenly cried out in terror, due to our divisive choice. Yes, we could have listed *Maniac Mansion*, but everyone knows *Maniac Mansion*. *Zak McKracken* is arguably just as good, and the journalistic setting struck a chord in the office. Traversing the entire globe Zak encounters aliens disguised with Groucho Marx style nose-glasses and cowboy hats. Throw into the mix wacky sidekicks, a bus which travels to mars, plus some bitingly witty newspaper headlines, and you have one hell of a crazy adventure.

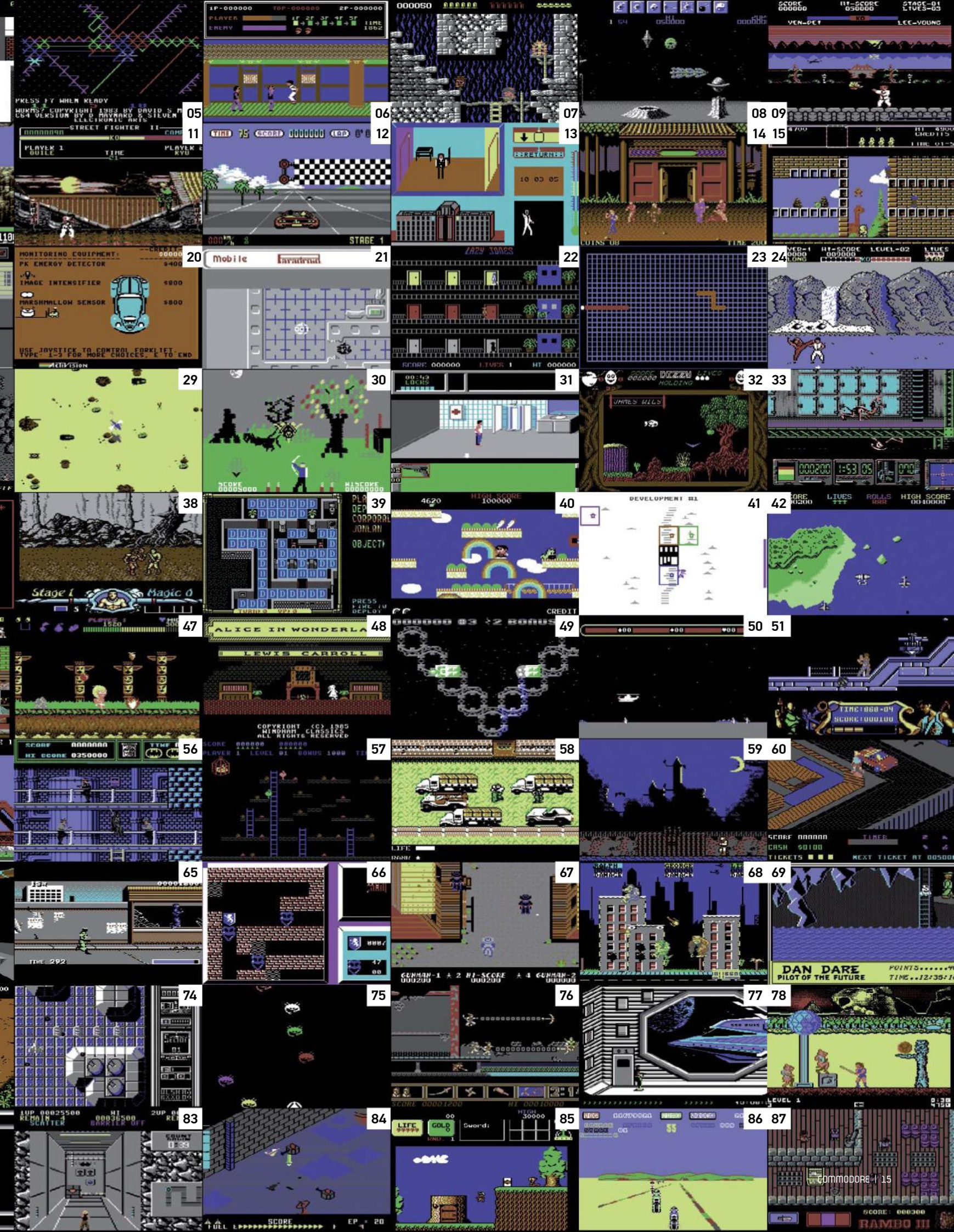


commodore 64 and the rest...

Loved by all who were fortunate enough to own one (and coveted by those who weren't) Commodore's C64 is one of gaming's greatest success stories and boasts a stunning array of classic titles. How many did you own?

- 01 ARCHON
- 02 HARD HAT MACK
- 03 JOHN MADDEN FOOTBALL
- 04 SKATE OR DIE!
- 05 WORMS?
- 06 KUNG-FU MASTER
- 07 RICK DANGEROUS
- 08 WIZBALL
- 09 YIE AR KUNG FU II
- 10 TURRICAN
- 11 STREET FIGHTER II
- 12 OUTRUN
- 13 A VIEW TO A KILL
- 14 DOUBLE DRAGON III
- 15 THE NEW ZEALAND STORY
- 16 ROBOCOPI
- 17 CAULDRON
- 18 ZAK McKracken
- 19 BACK TO THE FUTURE
- 20 GHOSTBUSTERS
- 21 PARADROID
- 22 LAZY JONES
- 23 TRON
- 24 YIE AR KUNG FU
- 25 SMASH TV
- 26 MAYHEM IN MONSTERLAND
- 27 JACK THE NIPPER
- 28 ARNIE
- 29 G.I. JOE
- 30 FORBIDDEN FOREST
- 31 DIEHARD
- 32 DIZZY
- 33 ALIEN 3
- 34 EXOLON
- 35 LAST NINJA 3
- 36 R-TYPE
- 37 ROBOTRON 2084
- 38 GOLDEN AXE
- 39 LAZER SQUAD
- 40 RAINBOW ISLANDS
- 41 M.U.L.E.
- 42 1942
- 43 GHOU'S 'N' GHOSTS
- 44 LITTLE COMPUTER PEOPLE
- 45 STREET FIGHTER
- 46 VIGILANTE
- 47 WONDERBOY
- 48 ALICE IN WONDERLAND
- 49 CARGO
- 50 CHOP LIFTER
- 51 STRIDER
- 52 RYGAR
- 53 THE ADDAMS FAMILY
- 54 IMPOSSIBLE MISSION
- 55 RUSH 'N' ATTACK
- 56 BATMAN
- 57 CHUCKIE EGG
- 58 METAL GEAR
- 59 CASTLEVANIA
- 60 -720 DEGREES
- 61 EXILE
- 62 LETHAL WEAPON
- 63 C.J.'S ELEPHANT ANTICS
- 64 STARFOX
- 65 NINJA WARRIORS
- 66 XOR
- 67 GUN SMOKE
- 68 RAMPAGE
- 69 DAN DARE
- 70 BELOW THE ROOT
- 71 TERMINATOR
- 72 SANXION
- 73 RETURN OF THE JEDI
- 74 XENON
- 75 DEMONS OF OSIRIS
- 76 NINJA SPIRIT
- 77 PROJECT FIRESTART
- 78 THUNDERCATS
- 79 LEGEND OF KAGE
- 80 ACE OF ACES
- 81 DIEHARD 2
- 82 AFTERBURNER
- 83 GRYZOR
- 84 ZAXXON
- 85 WONDERBOY: MONSTER LAND
- 86 SUPER HANG-ON
- 87 RAMBO III





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WORLD GAMES

AROUND THE WORLD IN 80 JOYSTICK WAGGLES



- » PUBLISHER: EPYX
- » RELEASED: 1986
- » GENRE: SPORTS
- » FEATURED HARDWARE: C64
- » EXPECT TO PAY: A FEW QUID



HISTORY

World Games for the C64 marked a departure from previous entries in the Games series, moving from events

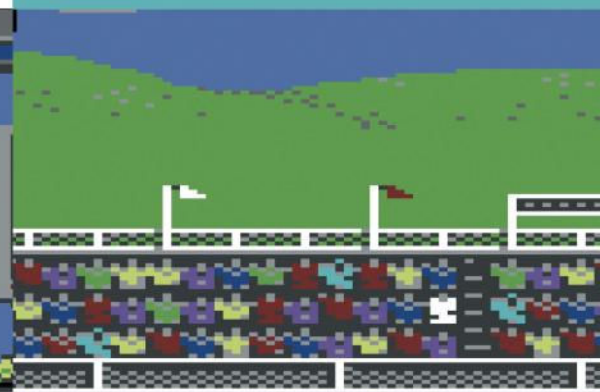
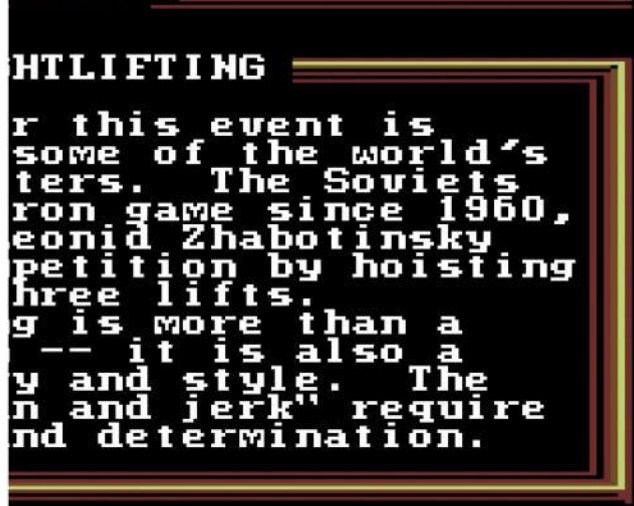
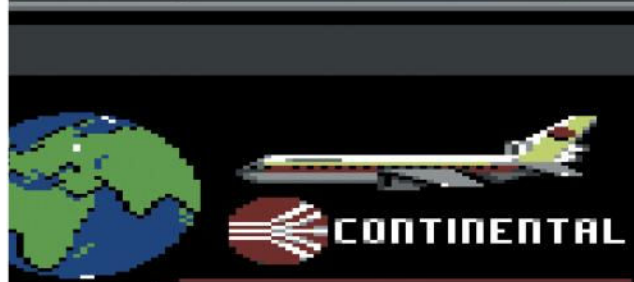
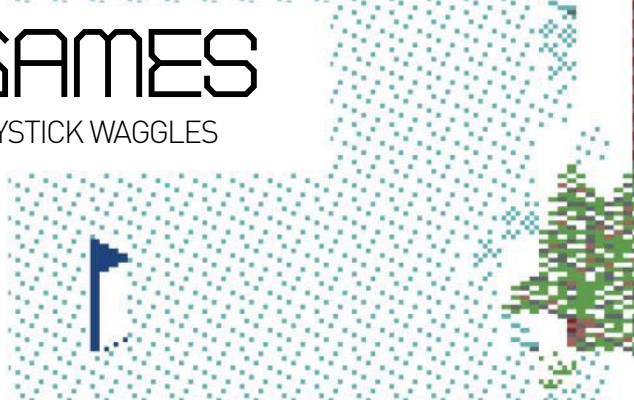
you'd see in the summer and winter Olympics to more diverse and, arguably, interesting fare.

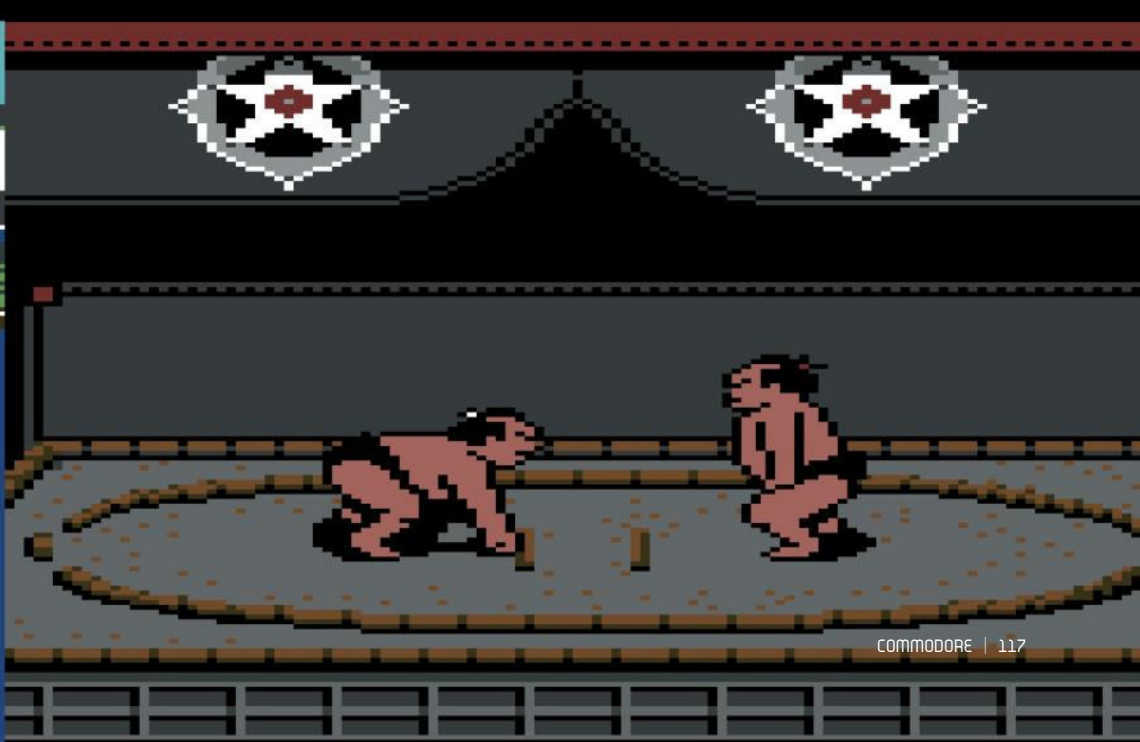
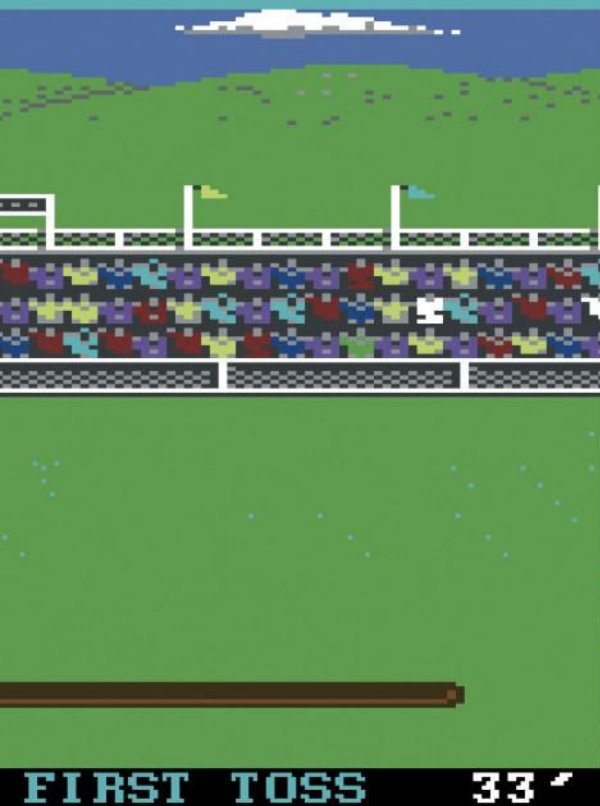
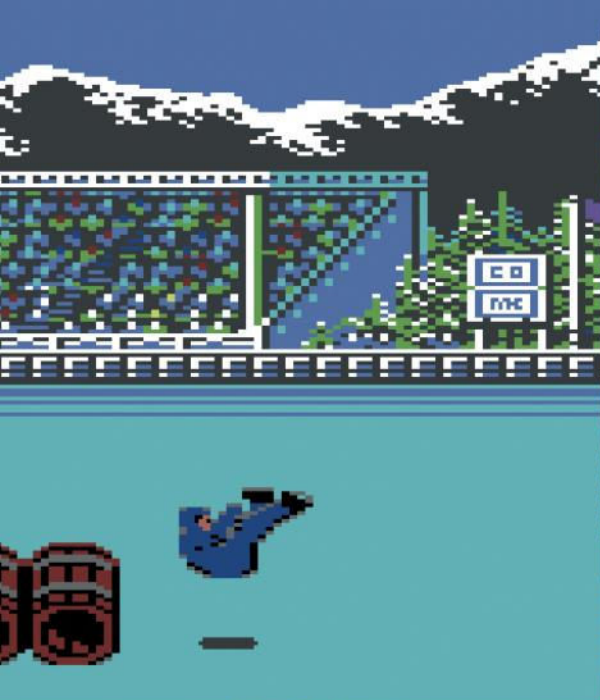
The idea was that you travelled around the world, experiencing eight varied and sometimes decidedly quirky events, many of which had not been immortalised on 8-bit computers before. While a couple were fairly straightforward – weightlifting in Russia and slalom skiing in France – the remainder were extremely leftfield: barrel-jumping on a German lake, perilous cliff-diving in Mexico, log-rolling in Canada, bull-riding in the USA, caber-tossing in Scotland and sumo wrestling in Japan. A varied selection to be sure.

For gamers increasingly jaded by traditional sports titles, *World Games* provided something genuinely new, even if the control methods were tried-and-tested (methodical left/right movements to build speed in barrel-jumping mirrored skating events in *Winter Games*, for example). But what took *World Games* to the next level was its programmers clearly having a blast while making the game, peppering each event with cute graphical touches that you only noticed after extended play.

Some were apparent only if you did nothing – a weightlifter checking his grip, a slalom skier digging his poles into the snow – but many were essentially rewards for failure. Cliff-dive into the bottom of the shallow pool, rather than rapidly surfacing, and a watching bird covers its face with a wing, not daring to look at your diver's misfortune. Likewise, take too long to set down a particularly heavy set of weights and you're treated to a cartoon skit that wouldn't look out of place in a Warner Bros. cartoon.

It's the mark of true gaming genius when a game's as much fun when you fail as when you actually succeed at it. This is one of the reasons the *Games* series – at least if we ignore everything that came after the excellent *California Games* – was such a huge success and remains compelling and fun multiplayer gaming today.







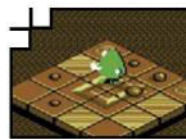
Tread softly, for you tread on their bombs. Andrew Fisher talks to Tony Crowther and David Bishop about designing the devious puzzle game that became a hit for Image Works

The press hyped the formation of Mirrorsoft's new Image Works label like a football team announcing its new signings of the season. The Bitmap Brothers became stars thanks to *Speedball*, but the partnership of Tony Crowther and David Bishop joining the label was also big news at the time. They had previously worked together for Mirrorsoft, creating *Zig Zag* – an isometric C64 game combining mazes, shooting and puzzles.

As David remembers, "*Bombuzal* was our Christmas present to John Cook at Mirrorsoft. We were due to deliver another game and did *Bombuzal* in our 'spare time' in parallel and delivered two games at the same time when he was expecting just the one that had been commissioned." Tony talks about the other

project. "Mirrorsoft got in touch with me to see if I could do the C64 version of *Fernandez Must Die*. The Atari ST version was underway, and they had nobody to do the C64 version. I changed the game a little, as a C64 was not an Atari ST."

So where did *Bombuzal* spring from? Tony says, "We had just done *Zig Zag*, and I had a few ideas on how to improve the look of the 3D. So, we bounced ideas off each other, I started work on the code and David was working on completing the design. I had not seen any other games with logic problems like this before, so it was all exciting stuff. We had not been green-lit by any company, so we weren't doing it for money, it was our pet project." David enjoyed the collaborative process. "I remember we threw the initial idea around during one of the



IN THE KNOW

» **PUBLISHER:**
IMAGE WORKS

» **DEVELOPER:** TONY
CROWTHER &
DAVID BISHOP

» **RELEASED:** 1988

» **PLATFORM:** VARIOUS

» **GENRE:** PUZZLE

weekends when I was at Tony's house in Sheffield. We went back and forth for a while but, pretty soon, we had a structure for the game and went from there. Normally, our combined ideas were stronger as a result of collaborating – it was a fairly natural part of making our games. Tony is super creative as well as being a black belt code ninja."

The aim of each level in *Bombuzal* was to detonate all the bombs without being blown up or falling off the tiles. As the complexity increased, more types of tile and bomb were added – riveted tiles could survive an explosion, switches altered the level layout and tiles with slots allowed the bombs to be moved. The most unusual idea was that the game could be viewed in two different ways, a top-down 2D view and an isometric 3D view.



» Triggering an A-bomb will detonate all the A-bombs on the level at once.

“Tony is super creative, as well as being a black belt code ninja”

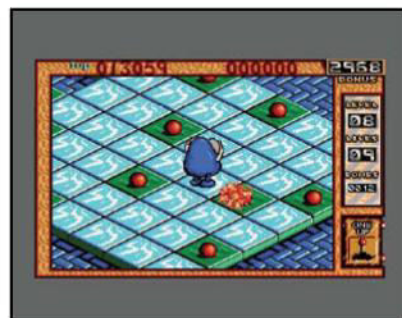
David Bishop on Tony Crowther

“Tony and I liked isometric games,” says David. “Although *Bombuzal* was easier to play in top-down mode, Tony was able to add the isometric view fairly easily so we decided to keep both views and give players the choice. We also felt that the isometric view would screenshot better and allow us to show off the characters that appeared in later levels in their best light.” Tony agrees. “The editor was 2D but the game was 3D, and I believed the 2D was easier to play. The levels were designed in 2D so they may have lost some of the expected view. As it happens we ended up using the map that was a tiny 2D view.”

Pre-release hype announced that several gaming celebrities had designed levels. These included Jeff Minter, Andrew Braybrook, Geoff Crammond, Dave ‘Ubik’ Korn and Jon Ritman.

Jeff’s level exploded to leave behind a llama. Jon takes some prompting. “I do remember designing a single level that basically had my name as the playable area – a bit naff, I know. I’m guessing there was an editor but I remember nothing about it.” Andrew Braybrook also draws a blank, but he contributed to the 130 levels that made up the game.

David admits, “One of the first things we did was spec out an editor that I could use to design levels during the week and then bring up to Sheffield at the weekend. I was (am still) not very technical, so it needed to be something a non-coder could use. Tony did such a great job with the editor we realised that we could maybe give it to a few additional people to design some levels for us. We made copies of the editor on C64 disks and gave



» Bubble the droid prepares to sacrifice himself to complete the level.

AFTER THE SMOKE HAS CLEARED

Bombuzal’s legacy blasts its way into the Nineties...

■ Kemco created a *Bombuzal*-style game called *The Bombing Islands* for PlayStation in 1997. It featured Kid Klown, a cute character designed by Kemco as a replacement for Mickey Mouse in an earlier NES game. As well as the movable 3D camera and being able to push the bombs around, *The Bombing Islands* added a step counter – the fewer taken to finish a level, the better the medal awarded.

Realtime Associates independently developed the N64 budget game *Charlie Blast’s Territory*. This removed the step counter but added the ability to jump. The multiplayer had extra types of bomb, and Capture Mode saw players capturing territory with their bomb blasts.



» Kid Klown thinks carefully before blowing himself up



» The first level of Charlie’s explosive adventure



» David Bishop, co-designer of *Bombuzal*.

them to a few people we knew in the industry – pretty quickly we got some great levels back so we decided to cast the net a little wider. We also came up with a cunning plan to send disks to all the editors of the magazines that would likely be reviewing the game when it was published. Our rationale was that any editor that had designed a level for a game would at least give it a half-decent review!” *Zzap!64* and *Your Commodore* were among the magazines that contributed. *ACE* magazine joked it could start a trend: “Imagine a level of *Dungeon Master* designed by Christopher Lee, a planet from *Oids* by Neil Armstrong, or an area of *Batman* by Adam West.”

Tony laughs when asked if he still has the editor. “It will most likely be on a disk in the loft eroding. But to be honest it was nothing complicated, and could knock an editor up in no time. Oh, hang on... I just did for the last project

I worked on! Getting the guest level ▶

► designers was fun, I remember helping Jeff Minter with his level. I think I visited him at home, but can't remember much more than that." Passwords were given every few levels, allowing the player to restart at that point. The later SNES version was more generous with a code for every level. Among the codes were Ratt, Bish and Lisa, Tony's wife. The C64 version started with a message "Dedicated to Frank Revill" – Lisa's father who sadly passed away during the creation of *Bombuzal*.

This was Tony's first 16-bit game, so he called in programmer Ross Goodley. Tony says, "I didn't do the code, I just did the graphics. It was a big change from working with four colours. But this did make me



» Gary Liddon and Gary Penn created the *Zzap64* level (larger than the map display can show).

take the plunge to move to 16-bit on the next project, *Phobia*. That was the project [when] I said goodbye to the C64." As for the challenge of 16-bit, David remarks, "We did *Bombuzal* originally on the C64. I do remember thinking that the ST and Amiga were like a whole new world for us to creatively explore. In terms of a technical learning curve, one of the things that makes Tony such a talented engineer and has kept him at the top of his game even today (he's now at Sumo doing great stuff there!) is his ability to master hardware architectures really quickly."

» Tony Crowther (known as RATT on CompuNet) created the graphics, including the loading screen.



Ross started programming while studying German at Sheffield University, and in 1982 he joined Alligata Software.

There he met Tony and they worked together over a number of years. "There were no particular tricks involved in the Amiga version of *Bombuzal* since the hardware was well capable of handling the project in a fairly straightforward fashion," says Ross. "The ST version was somewhat more of a challenge, as the hardware had no real support for scrolling or audio sample playback. Scrolling was handled by maintaining a circular frame buffer that was dumped to the display file every frame, using an offset from the start of the buffer to create the scrolling effect. Sample playback involved using a fast interrupt to constantly modify the volume setting of the, frankly, rather poor audio chip with which the ST had been burdened. Code was shared between the Amiga and ST versions, but since the video and audio hardware on the two platforms was so dissimilar the fact that they shared a main processor was of less help than I might have liked."

Tony says, "I think from the idea to up-and-running was around two weeks. So things were moving fast, getting the guest level designers up and running was the biggest delay. We presented the finished game

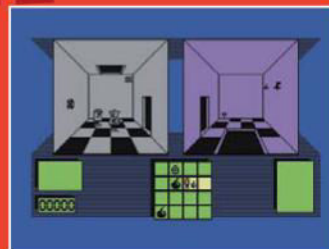
TICK TOCK BOOM

For all you pyromaniacs, here are several more bomb-based games...



ERIC & THE FLOATERS SPECTRUM

■ This strangely named game was actually the Spectrum conversion of Hudson Soft's first *Bomberman* game. The staples of the single-player mode are present, with you blowing up brick walls and enemies floating around the maze. Of course it's the multiplayer modes that made the rest of the series so popular...



DEACTIVATORS C64

■ A fascinating puzzle game from Ariolasoft, also designed by David Bishop. You control multiple droids – viewed in a unique 3D style – trying to defuse bombs in a research building where even the gravity changes. Dark rooms, teleporters and enemy droids make the task even more difficult. Read more about the game's creation in Issue 119's Making Of feature.



BOMB JACK ARCADE

■ Tectra's biggest coin-op hit – converted to home formats with varying degrees of success – awards bonus points for defusing as many lit bombs per screen as possible; the player has to follow the sequence carefully once the first bomb has been collected. The globetrotting Jack also has to avoid swarms of spawning enemies until he can grab the power-up coins.

to Image Works and they loved it – so we did get paid!” David recalls it took three months in total. “I mentioned John Cook earlier, he was, and still is, a good friend and someone who I respected and with whom I enjoyed working – he gave Tony and I free reign in terms of the games we did for Mirrorsoft/Image Works. We also enjoyed working with the other key people at Mirrorsoft, especially Jim Mackonochie, one of the industry’s true gentlemen who sadly passed away earlier this year.”

Reviews were incredibly positive, with an *ACE* rating of 919 (out of 1000) and *Zzap!* calling it “the cutest puzzle game on the C64”, awarding a Gold Medal and 97%. A month later, the Amiga version gained a *Sizzler* with 92%. The only dissenting voice was *CU Amiga*, handing out a miserly 49%. *Amiga Power* was much more enthusiastic. Stuart Campbell’s review in issue 0 (the preview issue) scored 84%, calling it “a genuine,

unadulterated classic everyone should own” – and the full game was free on issue one’s cover disk, before ELSPA clamped down on magazines giving away complete games.

C&VG mentioned a monochrome Spectrum version at the end of its review – the Spectrum was also listed in advertisements – but it was never released. The PC version was hampered by the way the EGA 3D display flick-scrolled. Tony says, “I didn’t know anything about the SNES and PC versions; it was just one day I saw it in a magazine and thought ‘cool, they have retained my graphics from the Amiga’. Not sure why they changed the name to *Ka-blooy*.” David adds, “John did tell us about the name change – we had no say in that but understood at the time that *Bombuzal* would not be a strong name in the US for whatever reason.” Plans for a sequel, mentioned alongside the *Amiga Power* review, fell through. This would have had ladders allowing



“It was an excellent design that did not get the recognition that it deserved”

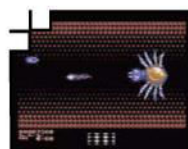
Ross Goodley



» Bad Guy Sinister always turns left, and the slotted tiles let you move bombs around.



» A reference to the magazine *Your Commodore* (CBM stood for Commodore Business Machines).



DEVELOPER HIGHLIGHTS

ZIG ZAG

SYSTEM: C64

YEAR: 1988

FERNANDEZ MUST DIE

SYSTEM: C64, AMIGA

YEAR: 1988

PHOBIA (PICTURED)

SYSTEM: C64, AMIGA, ATARI ST

YEAR: 1989

access to layers of platforms and enemies to defeat. Although David and Tony fail to recall much detail, the project was abandoned with the closure of Mirrorsoft after Robert Maxwell’s death.

Bombuzal’s legacy included two spin-off games and PC remake *Bombzuka* by xCept, entered in the 2006 Retro Remakes competition. David and Tony are still in the industry, but Ross has moved away from games. His opinion on *Bombuzal*? “I thought then and still think that it was an excellent design that did not get the recognition that it deserved. An outstanding action-puzzler that would give a great sense of satisfaction when a hard thought-out level finally ‘clicked’, a game that had that ‘just one more go before bedtime’ factor.”



KABOOM! ATARI 2600

■ Defusing a bomb with a bucket full of water may seem easy at first, but the pace and difficulty soon climb in this Activision hit by Larry Kaplan. The Mad Bomber throws huge numbers of bombs down the screen, which must be caught with the moving buckets (controlled by the paddles) before they hit the ground.



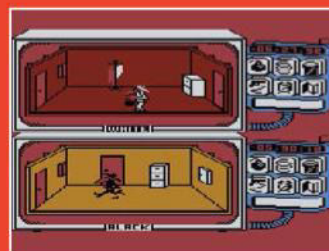
PSYCHO PIGS UXB C64

■ Infamous for US Gold’s risqué advertising campaign, this was based on arcade game *Butasan*. Each level sees one or two players trying to blow up the other pigs by direct contact with a thrown bomb or getting caught in the explosion when the bomb’s timer runs out. The frantic bonus round sees the player kissing the pigs that pop up.



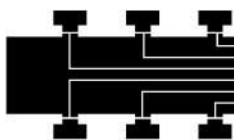
CRACK DOWN MEGA DRIVE

■ This lesser-known Sega arcade game resembled *Gauntlet* with its two-player maze action. In each level, secret agents Ben and Andy must thwart mad scientist Mr X by planting bombs and escaping before the timer expires. Large red X’s show where to place them. The Mega Drive conversion was available on the Wii’s Virtual Console.



SPY VS SPY ATARI 800

■ Mike Riedel’s original game of espionage (based on the *MAD* magazine comic strip) featured two devious types of bomb to attack your rival spy with. The small bomb can be placed as a trap in the embassy’s furniture, blowing up when the other player searches. The time bomb is trickier to get right but blows up the whole room...



Neil Brennan

» Age: 45
» Occupation: Senior software engineer
» URL: majitek.com
» Favourite composition: *Samurai Warrior/Usagi Yojimbo*
» All-time favourite SID: "Anything by Rob Hubbard"
» Favourite record: *The White Album* (The Beatles)



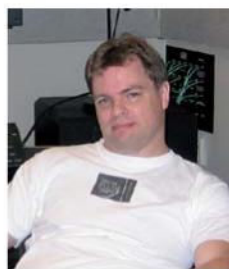
Ben Daglish

» Age: 43
» Occupation: Musician and programmer
» URL: ben-daglish.net
» Favourite composition: *Trap*
» All-time favourite SID: *Masters Of Magic*
» Favourite record: *Domino Theory* (Weather Report)



Jonathan Dunn

» Age: 41
» Occupation: Executive producer
» Favourite composition: *Total Recall* (title)
» All-time favourite SID: *Spellbound*
» Favourite record: *Backfired* (Masters at Work)



Martin Galway

» Age: 43
» Occupation: Freelance audio director
» Favourite composition: *Wizball* (title)
» All-time favourite SID: *One Man And His Droid*
» Favourite record: *The Flat Earth* (Thomas Dolby)



Fred Gray

» Age: 55
» Occupation: Care worker/admin worker
» Favourite composition: *Madballs* (title)
» All-time favourite SID: *Sanxion* (sub-tune 2)
» Favourite record: *Wish You Were Here* (Pink Floyd)



Jon Hare

» Age: 43
» Occupation: Games designer
» Favourite composition: *Oh No!*
» All-time favourite SID: *Parallax*
» Favourite record: *Everyone Is Everybody Else* (Barclay James Harvest)



The SID chip was revolutionary, and the musicians that made it sing laid the foundation for modern videogame music. Craig Grannell rounds up a dozen SID stars to find out their thoughts on the evolution of SID music

» The MOS Technology 6581/8580 SID (Sound Interface Device) was a behemoth in the days before sampled digital audio.

In the battle for 8-bit supremacy, the SID chip became the C64's main weapon. While other platforms offered more speed or better graphics than Commodore's reliable bread bin, the SID brought the earliest examples of high-quality videogame music to home gaming. As the years went by, relatively simple ditties gave way to hugely complex compositions, created by programmers and musicians that became 8-bit celebrities: Hubbard, Galway, Whittaker, Huelsbeck and many others. A great soundtrack could sell a game, and, increasingly, the SID sold the platform, with gamers drawn to

its chip-tune charms. Rather than tell the story of SID ourselves, this feature brings together 12 top talents from the C64 days, who reveal their memories about how they laid the groundwork for videogame soundtracks for years to come.

Why was the SID chip great?

Rob Hubbard: It was one of the first sound chips, and music evolved as the games were being pioneered. A whole culture developed around the C64 and the people involved with it.

Martin Galway: It was the most advanced sound synthesiser of its time, had unique features not found elsewhere, and was designed with an approach completely different to its rivals, which gave it a unique sound quality.

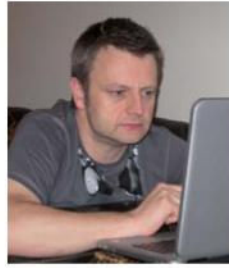
Chris Huelsbeck: The designers upped the ante, going beyond the norm, which was a cheesy digital style put into early arcade machines and computers. Yannes wanted to create a real synth, and he went on to build synths for Ensoniq. I recall he'd originally planned to put eight SIDs into a case with a keyboard, but it came out too noisy, but Commodore jumped on it. The design had a real filter, three oscillators, and sounded so much better than anything that had come before.

**Rob Hubbard**

- » Age: 53
- » Occupation: Musician
- » Favourite composition: *Sanxion*
- » All-time favourite SID: *Rambo*
- » Favourite record: "Too many to list"

**Chris Huelsbeck**

- » Age: 41
- » Occupation: Videogame composer/sound designer
- » URL: huelsbeck.com
- » Favourite composition: *Starball*
- » All-time favourite SID: *Monty On The Run*
- » Favourite record: *Please* (Pet Shop Boys)

**Graham 'The Mighty Bogg' Marsh**

- » Age: 43
- » Occupation: Electronics test engineer (team leader)
- » Favourite composition: Bits of different tunes
- » All-time favourite SID: *Aztec Challenge*
- » Favourite record: *Dirty Boy* (Cardiacs)

**Reyn Ouwehand**

- » Age: 36
- » Occupation: Record producer
- » URL: reyn.net
- » Favourite composition: *Deadlock*
- » All-time favourite SID: *Nightdawn* (sub-tune 2)
- » Favourite record: *OK Computer* (Radiohead)

**Martin Walker**

- » Age: "Stopped counting"
- » Occupation: Composer, sound designer, technical writer
- » URL: yewtreemagic.co.uk
- » Favourite composition: *Armalyte* (title)
- » All-time favourite SID: *Delta* (in-game)
- » Favourite record: *Close To The Edge* (Yes)

**Dave 'DialogueGuru' Whittaker**

- » Age: Old
- » Occupation: Head of audio, Traveller's Tales
- » URL: ttgames.com
- » Favourite composition: *Glider Rider*
- » All-time favourite SID: *Master Of Magic*
- » Favourite record: *Equinoxe* (Jean Michel Jarre)



Ben Daglish: It was the first sound chip you could do groovy things with. Before that, you got a square wave with a bit of an envelope, but with SID you've got all sorts of lovely sounds. It was my first proper electronic instrument and was groundbreaking.

Jon Hare: The C64 was the first games machine that could make anything that sounded even remotely like music. It had a unique sound of its own, which made it seem very futuristic at the time. It's the biggest leap in videogame sound I can remember.

Martin Walker: It could be frustrating working within the SID's limitations, but that's what taught you to make the most of what you had – good advice generally in life! For me, the most special aspect of the SID was its ring modulation and sync features, which allowed me to create metallic, 'speech-like' sound effects, such as the 'Meanwhile!' so many gamers commented on in *Hunter's Moon*.

Graham Marsh: I liked having three voices built in. Previously, I'd used the Spectrum and had to use an add-on box to do proper chords. The SID improved games no end – just play *Castle Of Terror* to feel the atmosphere good sound and music can create. *Aztec Challenge* used music progressively – the further you

got, the more the music developed, which is a great device and a good incentive to keep playing!

Neil Brennan: It was certainly a relative joy to compose for the SID 'beepatron' after the horrible deficiencies of the Z80's 'clickatron'. White noise, filters, ring mod... all lovely. I would have killed for one more channel, though.

Fred Gray: At first, I was more intrigued with the C64's sprites, and so my original music driver didn't fully exploit the SID's capabilities. It wasn't until I heard amazing things others were doing that I decided to write a more comprehensive driver. I always thought gameplay was the most important part of a game, but the SID intensified this with music. A good example is in the *Mutants* maze – it's like having a clock ticking in your brain. I think all SID programmers aimed to play psychological games with their listeners, especially Martin Galway with his moody pitch bends and thumping beats.

How did you get into making music for the Commodore 64?

MG: I was working on the BBC Micro, which was used in schools. I didn't think much of the C64 – it

was, by comparison, bereft of support for easy programming. But Ocean's development manager David Collier shoved a C64 in my face and said, 'Program for this instead!' I guess I was obliged at that point!

RH: I had a strong background in analogue synths and started playing music when I was a kid. I started



"We laid the groundwork for videogame sound. That it's still honoured is a testament to what we did" *Chris Huelsbeck*

The SID Crowd

PLAYBACK

HVSC AND SOASC Authentic SID Collection (SOASC=)

Download project based on High Voltage SID Collection (HVSC) up to 1000000 songs.

BASE: ALL SOASC= SOASC= Detailed list: MULTI SEARCH

SOASC= / SOASC= advanced search

Songtitle: _____ Format: _____ Year: _____

Composer: _____ Raw data: _____ Duration: _____

Release: _____ Full search: _____ Path/Filename: _____

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Search results (0) : 185 search time : 0.400000 seconds

Songtitle	Download Mp3	Composer	Release	Duration	Year	Format
Arkanoïd	1/11/82	ARK	SID	-3.68 MB	+02:17	+1987
Arkanoïd	2/11/82	ARK	SID	-2.58 MB	+01:17	+1987
Arkanoïd	3/11/82	ARK	SID	-0.21 MB	+00:03	+1987
Arkanoïd	4/11/82	ARK	SID	-0.13 MB	+00:04	+1987
Arkanoïd	5/11/82	ARK	SID	-0.13 MB	+00:06	+1987
Arkanoïd	6/11/82	ARK	SID	-0.10 MB	+00:03	+1987

Copyright information: STTL

» For when SIDPlay isn't authentic enough: SOASC.

EPIC SOUNDTRACKS



» [C64] Miami Vice: epic soundtrack; awful game.

Many SIDs were short loops and ditties due to memory limitations, but by utilising cunning looping techniques or applying lengthy soundtracks to relatively simple C64 games, SID musicians occasionally unleashed an epic. Hubbard's fantastic Pink Floyd-inspired 12-minute in-game *Delta* soundtrack remains a stunning piece, regardless of its chip-tune nature, and it isn't alone. Galway's ambient *Miami Vice* and intense *Parallax*, Matt Gray's filmic *Driller*, and Wally Beben's 26-minute piece for *Tetris* stand out from the crowd. And then there's the *Last Ninja* series – while its tunes are only a few minutes long, they helped in making the games seem like more than they were.

LIFTED BY MUSIC



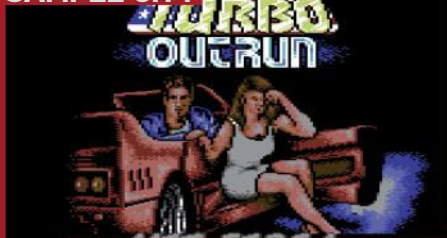
» [C64] Comic Bakery: great if you ignore everything but the music.

As Ben Daglish notes, C64 music was appreciated, and sometimes a composer's output could be so good that people would buy games primarily for their soundtracks. Hubbard classics graced iffy arcade conversion *Commando*, the mediocre *Knucklebusters*, budget failure *Rasputin* and rubbish shoot-'em-up *WAR*, lifting these turkeys from the mire. And even with divisive games like *Delta*, gamers tend to agree that Hubbard's music is sublime. Similarly, Galway's sterling efforts for Ocean ensured that *Miami Vice*, *Comic Bakery* and *Highlander* weren't complete disasters. Luckily, anyone today with a hankering to play these tunes can circumvent the games and just load the music in SIDPlay.

For SID playback, SIDPlay is suitable for most, but emulation isn't entirely accurate. Binary Zone (binaryzone.org) offers CDs of SID recordings, but Stein Eikesdal's Stone Oakvalley's Authentic SID Collection (www.6581-8580.com) aims to offer the High Voltage SID Collection (hvsc.c64.org) in MP3 format. "The project records SIDs on real C64s, with no attempts to improve the sound, but subtle noise reduction," says Stein. "The result is a 150,000-plus MP3 archive of music."

Stein says his aim was to provide the "sound as it would have appeared if you connected a C64 to a modern audio system", and although he'd been happy with SIDPlay, he changed his mind in 2006: "I found a site that showed the severe differences between emulation and real hardware, and this made me search for more authentic recordings." On discovering that no one had converted the HVSC, he did it himself.

SAMPLE CITY



» [C64] Turbo Outrun offers a successful mix of samples and SID.

At the time, samples proved divisive, with some SID composers considering them a technical feat, but not one with any real musical merit. Today, the low fidelity of C64 samples sticks out like a sore thumb, but top composers nonetheless managed to use the technique to add to their SIDs in a meaningful manner. Witness Hubbard's rocking guitars in *Arcade Classics* and *Skate Or Die*, the crunchy percussion in Galway's *Arkanoïd*, the loops behind the SID in Huelsbeck's *To Be On Top*, and Jeroen Tel's funky, sample-infused *Magical Sound Shower* update for *Turbo Outrun*. All great examples of SIDs where samples add character rather than detract from the synth sounds.

COVER VERSIONS



» [C64] Exploding Fist's main theme is based on Dance Of The Yao People.

C64 game tunes often 'appropriated' tunes by chart-topping acts and synth legends like Jarre. Some covers, however, are more obscure. Daglish's popular *Cobra* theme, for example, is taken from the movie, and the main theme from Neil Brennan's *Exploding Fist* is lifted from *Dance Of The Yao People* from Phases of the Moon. Many famous Hubbard tracks are also borderline covers: *Delta* is Philip Glass's *Koyaanisqatsi* sped up, *International Karate* borrows from Ryuichi Sakamoto's *Merry Christmas, Mr Lawrence*, and *Zoids* and *Master Of Magic* are based on Synergy tracks. However, due to the nature of the SID and C64 composers, even these tracks take on a life of their own.

doing games and eventually specialised in audio, since most of it was so bad.

BD: I was at school with Tony Crowther, and he asked me for the music to the death march for a game. I wrote out the notes and he then asked for some Jarre. I started thinking I could write stuff myself – and I did. Dave Whittaker: I started with making VIC-20 games and progressed to other major formats, eventually specialising in just audio.

FG: As I was discovering the C64, I was also trying to sell VIC-20 games to Tim Best. He liked the mood of my crude games, which he said was down to the music. One day, he told me to forget the VIC-20 and that we were off to Imagine – he wanted me on board to compose music for C64 games. I became an in-house music programmer, and it was a dream come true. All the musical experience I had at that time was with cheesy cabaret bands, but I loved music and programming. It was easier than playing live and I got to show off my creativity.

MW: I'd done some programming at university and had six C64 games published. But I'd been a musician for years before getting the programming bug, and so I created music and effects for my games. It seemed a natural progression to offer those services to others. Jonathan Dunn: I was at college studying music and programming, and I combined the two things, sending demos to publishers. Before I knew it, I was getting commissioned and got an in-house job at Ocean. Initially, I intended to go to university a year later, but I never went.

Reyn Ouwehand: I'm not a programmer, and so it was SoundTracker that got me hooked, years after Hubbard was done making his classics. I was involved with demo groups – Blackmail, Scoop Designs – and through them I got hooked up with System 3 and Boys Without Brains, which led to commercial work.

CH: I always loved synth music and wanted my own synth, but my family couldn't afford one. I was also interested in videogames, read about the C64, and was taken in by the description of the sound chip. It took a year to get the machine, and my gran gave me the last 50 bucks! Soon after I started programming, a friend needed sound for his new game, *Planet Of War*, and so I worked on that.

What would you say your main influences were when creating music for Commodore's machine?

RH: I had many musical influences from all kinds of things, but there was a lot of electronic synth pop music in the Eighties that everyone copied.

NB: I was heavily interested by David Sylvian's band Japan at the time – and yes, it really shows!

MG: I spent my formative musical years listening to loads of electronic music, such as Jarre, Tangerine Dream and Thomas Dolby. This affected my compositions, although as I'd grown up listening to rock and roll and enjoyed fiddly guitar solos, it was natural for me to try to emulate those too.

BD: My parents ran a folk club, and as a baby I was famously bounced on the knee of various folk luminaries. I played in orchestras and listened to lots of heavy metal in my teens, and then electronic stuff. It all sort of merged together. You do make distinctions between genres and styles, but it's all notes, really. And that's part of being a professional musician: you do what the job calls for. But I suppose 'orchestrally folksy' was my natural state.



“I had many musical influences from all kinds of things, but there was a lot of electronic synth pop music in the Eighties that everyone copied” *Rob Hubbard*

MW: My main influence was the SID chip itself, since this determined what I could write.

RO: I was raised in a very ‘amusical’ household, and my influence was mostly what other SID musicians did. I also think the SID’s sound was very significant. It really has its own style – and the phrasing of melodies is so SID.

GM: My first *Bogg Album* was cover versions of chart songs, but *Bogg Album 2* was all original stuff. I was listening to Depeche Mode, John Foxx, Gary Numan and Human League, so was influenced by them. I suppose my music had a certain style. I liked to mess around with odd chord changes, or weird out completely with ring mods. Music has to be stimulating for me to listen to it and I’m always trying to work out what’s going on. Once I work it out, I’m bored with it.

FG: I can’t say I had many influences, although I did like to borrow from the classics – I owe Bizet big time for *Foxx Fights Back!* But most of my music was purely me: I’d get a tune in my head and work on it, sometimes for days, trying to get it how I heard it in my head. Sometimes I’d strip them down into small, repetitive tunes for high-score tables. But I must admit Mike Oldfield inspired the *Mutants* main tune!

Did you consider the SID a synth, or were you trying to ape real-world instruments in your compositions?

FG: I often imagined orchestral pieces or rock arrangements, but rarely tried to emulate individual

instruments – the SID chip had a sound all of its own.

NB: The SID is pretty limited. I loved synths when they sounded like new instruments you hadn’t heard of yet, but I was never satisfied by what we got on the C64. It didn’t help that every C64 seemed to have its own unique filter values. There can’t have been much quality control in the SID chip factory!

DW: I just treated it as a restricted synth – you couldn’t really emulate any ‘real’ instruments.

MW: Drums were feasible by changing between noise and other waveforms ‘on the fly’, but in general the sounds were out and out synth-like in nature, so I went with the flow. Given that most games were futuristic shoot-em-ups, synth music was the perfect choice anyway.

BD: I went for trying to get ‘realish’ instrument sounds, but there were definitely two camps: people like me, and those into pure SID. Often, those sounds became the basis of a piece, but I’m into notes. I don’t care what they’re played on. Generally, I’d come up with the tune and notes, then play with settings until everything sounded halfway decent. The one exception was *Deflektor*: I came up with a really nice cowbell sound and decided I had to write a piece around it. ‘TOK TOK TOK-N-TOK!’ You gotta do something with that, right?

JH: What was great about the SID was it being a crossover instrument between techie bleeps and regular electro-synth music. It’s interesting in the SID’80s band I play in that Mark Knight’s electric



violin sounds close in tone to some of the synth lead voices used by C64 composers.

What process did you use when composing?

RH: I played most of the games and then used an assembler program and typed everything in using database statements. I used my own code – I was one of the first to use sampled instruments, and to try and get tunes that sounded like they had more than three voices.

DW: I used my Yamaha CX5 and Roland Jupiter 6, and then machine code and assemblers – but no MIDI – on the C64. I coded everything, although I did share and swap players with Rob Hubbard for a couple of different formats.

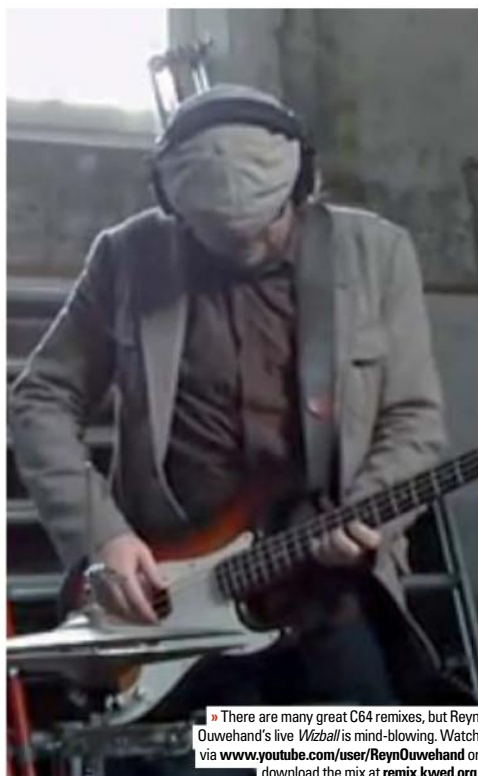
MG: I had an all assembly language, no fancy editors, hard-work approach to putting in tune data. This allowed me to custom-modify program code for each tune, but slowed development considerably. Complex tunes could take a month to complete.

JH: For a lot of the *Wizball* music, Martin got Chris to play lead guitar and me to play bass, and then transposed our music on to the C64.

MG: I also used a Seiko synthesiser that was lying around the office, but it wasn’t closely connected, technologically – it was just a keyboard I could rehearse on. My code was my own, and I believe I invented the fast arpeggiation technique for mimicking chords, first released in *Kong Strikes Back* in 1984.

GM: I started off using DATA statements, playing notes on my synth, and converting them into numbers from the *C64 Programmer’s Reference Guide!* Hundreds of lines of numbers, all hand-coded in BASIC! Later, I got a version of Hall & Oates’ *Maniac* that played on interrupts. I was so amazed at music playing in the background while I typed BASIC routines that I found out which program created it and got a copy. That was Master Composer, which I used for everything after that.

MW: I just started entering data and creating the music in situ, so I could hear right away how the final result was going to sound. I’ve always been disappointed when composing on one platform and rearranging the music on another with its own set of limitations. With only one C64, I couldn’t play games while working on the music, but I’d sometimes record it to cassette and play that alongside to make sure it fitted well. Also, with the tiny amount of RAM I was allocated, every byte counted, so I often used polyrhythms – two loops of slightly different lengths that played against each other, resulting in long sections of evolving music



» There are many great C64 remixes, but Reyn Ouwehand's live *Wizball* is mind-blowing. Watch via www.youtube.com/user/ReynOuwehand or download the mix at remix.kwed.org.

before they repeated, but using very few bytes. NB: I'd meet with Fred Milgrom, who'd brief me regarding what he was after. I'd then hide in my bedroom with a four-track cassette recorder and lots of keyboards and guitars. A couple of days later, I'd play him my ideas and we'd choose which to port to the C64. I'd transpose my four polyphonic tracks into three mono ones in the music language I'd written and implemented for the C64.

FG: I'd find the backbone of a tune on the keyboard, but most arranging was done on the C64, tweaking note and effects data. I used my own drivers and got interesting original effects by using pitch envelopes, as in *Nodes Of Yesod*. When I rewrote my driver, I made great use of ring modulation, as shown in *Mutants*.

RO: I'd studied piano, so I mostly composed on the piano and then put the notes in the computer. But I'm a bad programmer, so I had to wait for others to create players and routines for me, which was a hassle. I think it was easier for Hubbard and Galway to make C64 music, because they were very good programmers. Sometimes, I got to play the games. I custom made music for *Last Ninja 3*, and when Cyberdyne made a game, we stayed in this house and worked together, trying to make the music in sync. But mostly you'd get a fax detailing what was needed: the number of levels, and maybe what kind of atmosphere there should be.

CH: When I got the C64, I played games for a year and programmed a little BASIC. But I really wanted to

become a games designer, and so I started assembly programming and made myself a player. When making tunes, I'd usually play around with a bass line, play with cool sounds, make a beat or something, and develop a melody over it. I think my music is more melody-driven than the background – the background's kind of interchangeable. Regarding the sound itself, an important thing with SID is pulse-width modulation, which makes one voice sound very fat, like when you detune a few normal synth voices and play them together. Almost everyone used that to enhance their sounds, and I had that figured out very early. When Galway did his arpeggios, I was already thinking about altering the frequency very fast to get a chord impression. When I heard his Ocean Loader, I coded that stuff in and it made a huge difference.

BD: I did it all in my head. I used to sit down with the text editor and type notes out. If things got very complicated, I'd maybe grab an instrument and see what something sounded like, but generally it was from the head to the page. Tony Crowther wrote a nice driver for me to type in things like 'C2, 10, D2, 13', and we adapted it to add structural stuff – loops, phrases – and define different sounds. I worked with that and other drivers at Gremlin, before I wrote my own, which then made it easier to port code to different platforms.

What are your thoughts regarding samples within SID tunes?

RH: Sampling used too much CPU to be practical, but it was a new effect. It was limited, but it did add something to get away from the 'generic' SID sound.

CH: Samples were a discovery I had in my early days at Rainbow Arts. I was researching new ways of enhancing SID sounds and discovered Digidrums. The main program was BASIC and there were assembly routines for the playback of the drums. I found how the drums were triggered and played with the program and realised you could activate SID voices behind the drums. That gave me the idea to combine a SID tune with sampled drums. With a friend, I hacked together a sampler on the C64 user port, sampled my own digi drums, had my own playback routine and combined that with my player. We had this cool stuff laying around for a few months, waiting for a game to put it in, and I imagined the reviewers would go bananas when they heard it. And then Galway's *Arkanoïd* came out just before we released our stuff! His technique was based on the same principle as

“I imagined orchestral pieces or rock arrangements, but rarely tried to emulate instruments – the SID chip had a sound all of its own” Fred Gray



» Top SID composers matched great music with quality sound effects, such as the metallic noises and blasting sounds in Martin Walker's *Hunter's Moon*.



ours, only his drums were a bit more synthesised.

RO: I was never into the digital thing, because I thought it sounded crap. If you want to do the real thing, do it real. If you want real drums, guitars and basses, record real instruments. For me, the fun thing about SID was that it sounded like a SID – it had its own distinct sound. On the Amiga, you could use samples, but they didn't sound like the real thing, so that's when I quit computer music, got a proper sampler and focused on real music production.

BD: Another problem with samples was the space they took up, not leaving much room for a game. It was technically impressive what people managed to do, but not necessarily musically impressive. It was more about sounds than notes, which was never my bag.

MG: When sample playback was discovered, the musicality went away to a degree, because sample fidelity was low, but it was an unstoppable technological development and couldn't be resisted.

What were the biggest constraints when working on SID music?

BD: Three voices! What could you do in three voices? I wanted an orchestra! [laughs] There was the fun aspect, the challenge – you'd use wobbly chords with fast arpeggios, and work around the limitations, but it was hard writing good harmonies. You'd drop one voice if you wanted sound effects. Deciding which was going to be the least important voice... They're all important! You don't need explosions – listen to the music!

GM: I quite like limitation. With current PC recording studios and unlimited sounds, I never get started. You had three voices and you just got on with it.

RO: Limitations give the best results. Nowadays, everything's possible and everything sounds the same. The SID's limitations gave it its own sound and also originality.

MW: The lack of memory was a problem: you were lucky to get a couple of kilobytes for your player code and music data. With few simultaneous channels, I ended up combining several instruments into single musical lines to add depth, like a sampled drum loop today. I'd follow a kick drum with a bass note, then a snare drum hit, another bass note, and so on, while another channel played the melody and a third was dedicated to multiplexed chords. But occasionally memory constraints could be so severe that I had to strip [various] features from my player, such as vibrato,

in order to claw back the bytes to squeeze in another tune!

MG: No stereo panning... The filter could only be clearly applied to one voice... I found the ADSR programming tricky too. I adapted compositions to meet the needs of the chip, which meant they don't translate perfectly on other setups without the same limitations. I sometimes imagined a larger tune was in there, but only three notes at any one time could get out. **JD:** For me, the biggest constraint at Ocean was the time you had to do something. We were churning out games, and I'd work on platform conversions of tunes. But one of the fun aspects of making music for 8-bit games was pushing the hardware. If we wanted to do something different, we had to work out how to do it.

How did you handle arcade conversions?

RH: I always tried to write music to maximise the target hardware. And so if I had to convert some other music I tried to adapt it to suit the C64.

DW: I hated doing arcade conversions. You never got the musical scores – you just had to listen to every single note, again and again. Painful!

JD: Amazingly, we did occasionally get scores for some conversions, although we'd mostly transcribe from tape.

MW: It was a nightmare! Sometimes I got an inch-thick pile of music manuscript paper with scores from Japanese companies, but mostly you were lucky to get a poorly recorded cassette of each tune, made by placing the in-built microphone nearby while someone played the arcade game. Inevitably, they forgot they were recording the music, so you had to fathom out the notes while people chatted, groaned and chortled over the top! **FG:** I thought converting arcade tunes was fun – they were a challenge. I once remember hearing a Joplin tune and discovered it was in F-major. I went to the library and found a Joplin anthology, and the first tune in F-major was the music I was after. I quickly converted the dots to numbers and had my music – easiest money I ever made! And there was always some of your own style in the conversions, which was all part of their charm.

When it comes to C64 music, what was your proudest moment?

RH: The full orchestral arrangement that I did of *International Karate* was a lifetime ambition.

It's a pity it wasn't recorded.

DW: Hearing my music in a game, for the first time, at computer shows.



NUMBER CRUNCHING

Bob Yannes designed and completed his work on the initial version of the SID chip in 1981

Advanced for its time, the SID chip provides **3** independent oscillators with **4** available waveforms each, **1** multi-mode filter, **3** ADSR volume controls and **3** ring modulators

The SID went through **8** known revisions during its life, some of which dramatically changed its output. For example, samples are significantly quieter on the **8580** revision

Zzap!64 magazine gave Rob Hubbard's audio for *Monty On The Run* a score of **99%**, calling it "Aurally am-m-m-mazing, technically perfect"

The SID chip had the US patent **4,677,890**, although this expired in 2004

At the time of writing, the High Voltage SID Collection contains nearly **37,000** SIDs



» Delta's mix-e-load mini mixing desk for Rob Hubbard tunelets. So good, you'd stop loading the game just to mess about with it.



MW: The first time I heard my music incorporated into someone else's game, along with all the sound effects, and realising how much it enhanced the whole gaming experience.

NB: That moment when you first play a just-completed game, stand back, and feel you've contributed to the full experience. I was proud of songs I created for games that good friends had written, and that I'd contributed to something they were proud of too.

FG: The fact that fans still love what I created back then – the wonderful mixes, rearrangements and live performances 25 years on. It could have easily been forgotten – you guys are the best, listeners and musicians alike!

RO: For me, the whole journey was great – especially, as a teenager, being invited to London for a business trip to make music for cool games!

BD: The number of emails I get from people who say they became a musician because of me. It's amazing to feel you've influenced so many people and turned them on to music. It was a great period, before game music became background 'film' music you don't notice is there. In the Eighties, game music was important – it was something games were scored on. People really appreciated it.

Are you still involved in music and did composing SID music help?

CH: My basic compositional approach is similar. I've learned more and do more sophisticated compositions, but you still hear my music and think: 'That's a Huelsbeck composition!'

BD: Writing hundreds of tunes was good composition practice – the C64 taught me about writing music and developing tunes, and the workmanship/craftsmanship aspect. SID music was also good training in utilising minimal resources, helpful for when I started writing for video and theatre. I'm now good at taking a bunch of actors who have never played anything before and getting them to create their own music.

JH: I'm working a lot with music right now. Along with SID '80s, Ben Daglish and I have launched **sensiblesoundware.com**, featuring 30 albums of material from games people and collaborators.

MW: Many people haven't realised the Martin Walker who writes for *Sound On Sound* and *Audio Technology* magazines is the same one who created those C64 games and music! I'm also working on my fifth album of ambient music for Yew Tree Magic, and recently took up sound design again. With that, I've ironically turned full circle, again trying to squeeze the last

drop of creativity out of a particular sound engine, just as I used to years ago with the SID.

JD: I'm still involved in music and the games industry.

I've been releasing house music for ten years, and my work has appeared on labels like Hed Kandi and TV shows Grey's

Anatomy and *CSI: New York*.

NB: I've had bands for years and still occasionally play. The SID years were the first time I'd been paid for being a composer and arranger, and made me a

CONTEMPORARY SID



Chris Abbott of C64audio.com provides insight into the SID's role in contemporary music, from the C64 remix scene through to SID samples in commercial chart-toppers

■ What's your background regarding C64 audio?

I started as a wannabe composer, took the initiative with the CD everyone was waiting for, and accidentally moved into publishing and C64 live events.

■ What are your thoughts on the longevity of SID tunes?

There's a niche of creative individuals deeply affected by C64 music. It combined with our lives to become a unique soundtrack. It's good this link to the past isn't lost and that artists use the C64 scene for artistic growth.

■ Why did you create the original *Back In Time* CD?

Everyone had wanted a CD like that for ages. There were technical and budgetary limitations, but getting Rob Hubbard to cover his own stuff was mind-blowing at the time. It remains the bestselling album I've done, and for many people I think it kind of sated them forever.

■ What are your thoughts on the remixes available today?

It's a glut. The days when someone could release

something stunningly game-changing are over. People buy less C64 music than they used to, because you can gorge yourself online. But it's good it's there, and the scene's main players work together, so it's a stable environment.

■ There's a dark side to C64 remixing – recording artists using SID samples without permission, such as *Zombie Nation*. What's your thinking on this?

Actually, *Zombie Nation* was later granted permission to use *Lazy Jones* in *Kernkraft 400*, but he went way beyond that permission. In the way he acted, it's like renting out your house and finding the tenant later claims to own it, changes the locks, and threatens you

with legal action if you try to get another tenant. Then, when threatened, he offers to hire you a room back.

■ What about Timbaland sampling a SID for Nelly Furtado's *Do It*?

That fiasco – sampling Glenn Rune Gallefoss's SID cover of *Acidjazzed Evening* by Tempest – is more typical. It's not surprising to see how a record company and rich producer can behave, but it is disappointing. There's a trial in Miami in 2010 where it will all come out, and hopefully by then someone will have examined Timbaland's master project file. The chances of him having recreated *Acidjazzed Evening* independently with other equipment – making it so similar to the original that it sounds sampled – are zero. But lawyers have to claim ridiculous things and pretend to believe them, and judges often know or care even less about important technical issues. To sum up, when I hear about it, I think 'Not again', rather than 'Hey, a pile of money to be made suing people'. Court action is expensive, uncertain, lengthy and stressful. I'd rather people asked permission and negotiated fairly in advance.

■ What are your thoughts for the future of SID in a modern context?

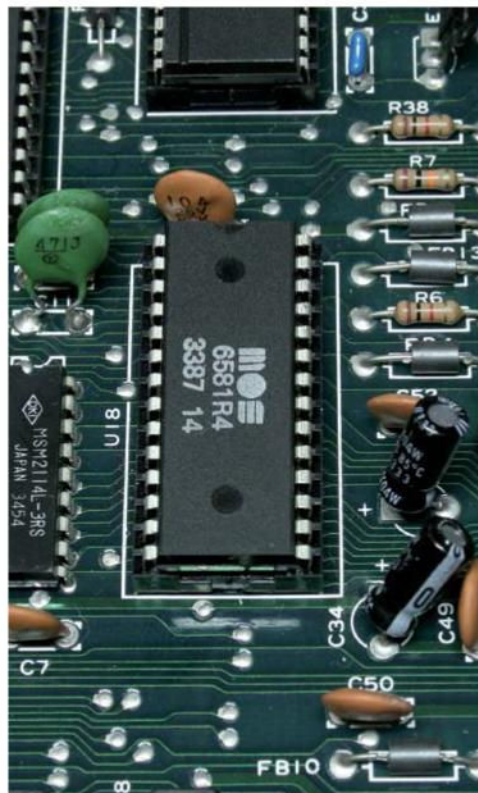
If it breaks out of its niche, it will be by SIDs being cannibalised into modern hit songs. The possibilities are wide, though these days every man and his dog wants to do *Lazy Jones*. Lazy bastards, more like.





» Paul Norman's *Forbidden Forest* is one of the earliest videogames with a contextual soundtrack changing as events unfold.

“I sometimes imagined that a larger tune was in there, but only three notes at any one time could get out” *Martin Galway*



better musician than I'd otherwise have been. I hated the limitations, but the C64 made me work harder, to distil the necessary essence of a song down to the smallest number of constituent parts.

What are your thoughts on the longevity and continuing popularity of music for the Commodore 64?

NB: I find it a bit hard to believe. My life's moved on so far that it's like it happened to another person.

I got a call from a fan in Denmark a few years back, and it's one of the most surreal experiences of my life: 'Commodore 64 still rocks in Denmark!'

BD: It's great. When I wrote the tunes, I imagined orchestras and rock bands, and now remixes are being done like that. It's such a gas playing stuff I wrote 25 years ago with SID'80s and making it sound good. Sometimes, when I look back with my 25 years of musical sophistication [laughs], I sometimes think 'Oh my god', but they were good tunes with good melodies. People enjoy a good song they can sing. If you can pull that off on stage, it's great.

DW: It's nice people still take an interest, but it is a long time ago!

MW: I'm touched people not only remember, but still take the trouble to email me with their thanks for the enjoyment my music has given them over the years. I'm particularly chuffed with the remixes I've heard.

MG: I'm amazed that they're still getting referred to. Most gamers of the era are my age, and regard this thing as a way to remember their childhoods. But there are younger 'retro enthusiasts' who like the sound of early gaming chips! I'm not sure what it all means. Maybe there's an innocence that was lost when more powerful systems came out.

JH: It's nice that SIDs are remembered, but a little sad they're regurgitated. I wish people would focus on creating their own amazing new thing and just listen to old stuff for inspiration. But, overall, it is flattering people even care.

GM: I'm amazed that people are still interested. I abandoned the C64 around 1987 and don't entirely understand the C64 scene now – things have moved on. I'm not complaining, though. It's nice to be remembered.

JD: I love the fact that people are still interested enough to remix my old work. If you'd told me 20 years ago that people would be doing this, I wouldn't have believed you.

RO: In the end, it's nostalgia. We all grew up, but with the internet we can stay in our childhoods a little longer. For me, personally, I see SID remixes as an exercise. I respect the original SID and imagine how it would sound today if the composer were in the studio. It's nice when Galway or Daglish tells me my remix is pretty much what they had in mind when they composed their SID.

CH: Until recently I never thought about it. I focus on my career to get to the next step and live off my work. But we all laid the groundwork for videogame music and sound, and being part of a pioneer phase is very cool. That it's still honoured by the fans is a testament to what we did back then.

Special thanks to: Stein Eikesdal (a.k.a. Stone Oakvalley): www.6581-8580.com, Warren Pilkington (zawtowers.org.uk), Manus Buchart for their help with images.

HOVER BOVVER

THE GRASS IS ALWAYS GREENER...



- » PUBLISHER: LLAMASOFT
- » RELEASED: 1984
- » GENRE: ACTION
- » FEATURED HARDWARE: COMMODORE 64
- » EXPECT TO PAY: A FEW QUID



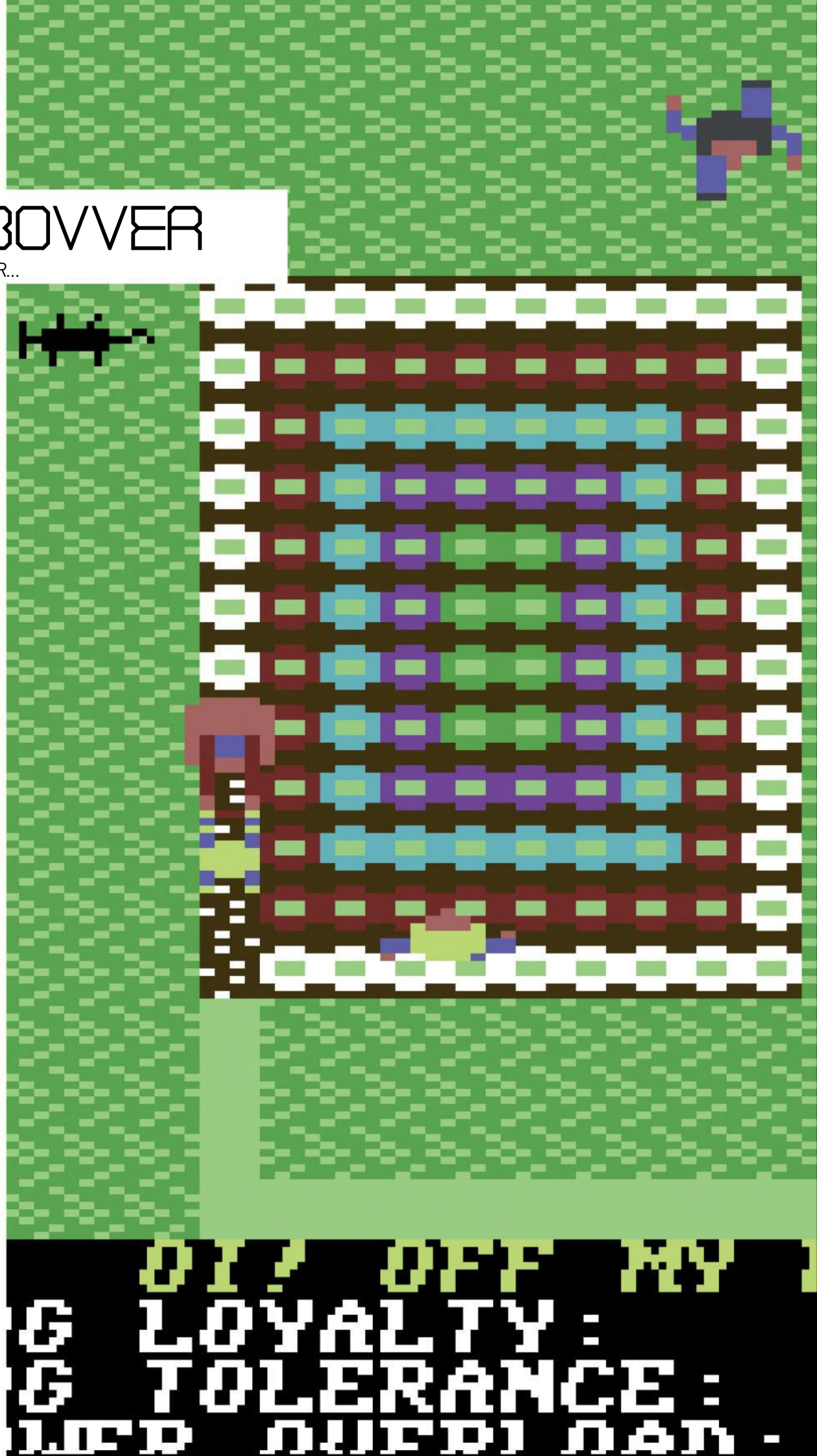
HISTORY

If there's one thing I like about the colder months, it's that I don't have to mow the lawn.

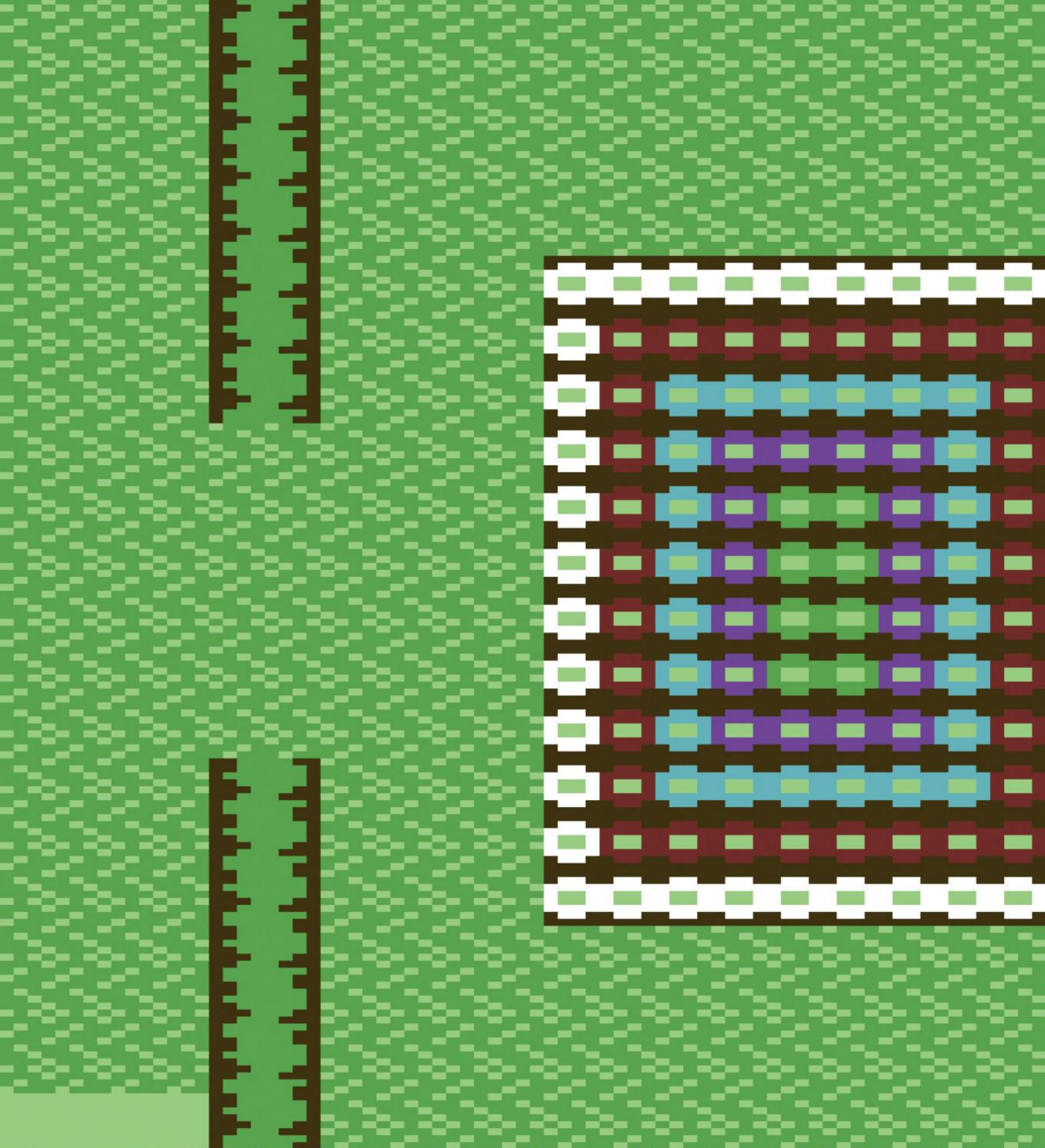
You see, I get hay fever, and not just any old hay fever but the kind that makes me think someone sneaked into my bedroom late at night, filled my sinuses with liquid concrete, and then used my head for bongo practice until dawn. Clearly, partaking in an activity that flings considerable amounts of pollen directly into my nostrils isn't something I welcome.

Strangely, though, things I tend to dislike doing – driving and playing tennis, for example – are often the videogame subjects I'm most drawn to. Therefore, it should come as no surprise that I've spent a fair bit of time immersed in Jeff Minter's superlative mow-'em-up, the superbly named *Hover Bover*. Ultimately, it's the larger-than-life elements within games that make them more interesting than the humdrum nature of reality. For example, careering around a corner at ridiculous speeds in *OutRun 2* is significantly more fun than poolting down the A331, wondering whether you should take the exit to Frimley, because there's usually a bit of a queue at Camberley. And so it is with Minter's videogame version of mowing. Instead of tediously pushing the mower back and forth across your lawn, while the sun tries its level best to melt your eyebrows, *Hover Bover* gives you a turbo-charged mower, an angry neighbour to avoid (it's his mower that you've, er, 'borrowed'), a gardener to evade (should you accidentally mow over the flowers), and an 'attack dog' to keep loyal (or he attacks you rather than your foes).

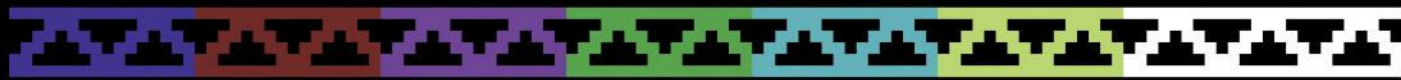
It's not like these things don't exist in real life – while I'm unlikely to fling myself around winding country roads at 90 mph, *OutRun*-style, I could spice up my mowing experience by antagonising the dog, stealing my neighbour's mower and then careering headlong into every flowerbed in sight. It might not help my hay fever, but the ensuing chaos should at least take my mind off of it.



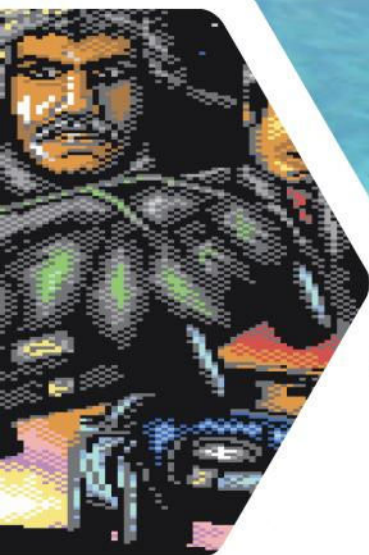
DIFF MY
LOYALTY:
TOLERANCE:
WCP NUCPI NAN -



FLOWERS, YOU LUNATIC



Ocean Software was one of the biggest names in the 8-bit videogame industry, and a massive presence on the Commodore 64. While it initially started off with poor licences of hit films and TV shows, it soon turned a corner, to become one of the most important developers in the industry. David Crookes explains how it all happened



OCEAN SOFT

It was one of the largest and most respected games publishers in the world – a company that produced movie tie-ins by the bucketload and converted dozens of top notch coin-op classics.

Nowadays, Ocean Software is nowhere to be seen, having been swallowed up by French firm Infogrames in the late 1990s.

But during the height of its dominance, the firm was frequently voted “software house of the year”, its adverts plastered across almost every single computer magazine across two decades.

“And everyone hated us,” says top Spectrum games programmer Jonathan Smith, who was at Ocean for three years from 1984 and was responsible for *Midnight Resistance* and the wrist-numbing *Daley Thompson’s Super Test*.

“They were right to hate us. I buzzed off that!”

Ocean was founded by Liverpoolian David Ward, who had already achieved business success with a small chain of boutiques selling ethnic garb, which, in the early 1980s, was quite a trend.

Thinking he could get a good supply of gear from Morocco, fill up a van and bring it back to Britain to flog at a profit, he found himself languishing in a jail in Algerias. With this in mind, he flew to Morocco for his next trip and did the deals on a more professional level and his clothing plan began to expand. But before long, he had spotted another trend, this time while on a trip to America. He saw potential in the fledgling computer games market and realised videogames would one day be a firm part of the entertainment business.

So, on his return to Britain in 1982, he set up Ocean Software as a publishing company. All he needed to do, he surmised, was find a group of talented programmers to produce a range of great games which he could market. By the end of the first year, Ward had five staff, a turnover of £500,000 and had sold 200,000 games. He became chairman, and his partner Jon Woods – who is now a major investor in Everton Football Club – was managing director. And the Ocean brand was established as the EA of its day, with around 60 programmers around Britain. Ward said in 1986: “As a publisher we wanted to cast our net as wide as possible so as not to exclude any creative forces.”

After a couple of years, Ocean became a developer and snapped up young, emerging talent to work in-house. With an average age of 19, the programmers were loyal and keen. Ocean became based on Central Street in Manchester and there were certainly temptations outside the office, a stone’s throw from the nightlife and shops of Deansgate. But the programmers hardly saw daylight – they were holed up in the building’s basement and, to make matters worse, there was an alcohol ban, possibly because it was a former Quakers building. And a supposedly haunted one at that.

Artist Brian Flanagan says: “The building was on a burial ground and there is still a plaque on the Central Street car park explaining the history - and the fact that there are still scores of remains buried there. “And where were we? In the basement! Some people mentioned feelings of ‘not being alone’ during all nighters, but I can’t say I saw or felt anything supernatural...”

IN BRIEF

Ocean was the Electronic Arts of the Eighties, a big, brash, software house obsessed by film and arcade licenses. Set up by Liverpoolian entrepreneur David Ward in Manchester in 1982, it was first a publisher, then a developer. Ocean initially produced a string of terrible games but managed to sell them, generating enough cash to go on to create bigger and better games. Ambitious plans in 1996 to reorganise Ocean in light of the new consoles were scrapped when Infogrames bought the company. Three years later, the brand was no more.



WARE

But why Manchester? "I can't remember why Ocean set up offices in Manchester" says Gary Bracey, former development director at Ocean who started at the firm in 1985. "Both Jon and David were from Liverpool but I think they believed Manchester had a more credible commercial perception than Liverpool, due to the left wing image it portrayed at the time. Image was certainly important. David and Jon were marketing people first and foremost and built the company on their creativity and drive to succeed. But while it may have been outwardly perceived as a well-oiled, professional organisation, inside, Ocean was a ball of sheer energy, running on the power of the developers' talents and the managers' enthusiasm and beliefs."

The in-house talent at Ocean began to grow substantially, but Ocean was also proud of its external resources, which included Jon Ritman and Bernie Drummond, Denton Designs, Sensible Software and Digital Image Design which produced some of the finest flight sims the market had seen. But those early days of games development at Ocean were a real seat-of-the-pants affair, according to Bracey.

He said the games gestated at the whims of the programmers and artists' creative freedoms were encouraged, but indulgences had to be reined in due to that ever-present threat of slippage.

Yet many of those early games were hardly ground-breaking, even though they often carried big names from *Knight Rider* through *Street Hawk*, to Hasbro's *Transformers*.

That's because Ward believed the key to good game sales was to make it recognisable to consumers. This led to scores of film and

arcade licences being secured – many of which were absolutely dire. "If you forget that *Knight Rider/Street Hawk* period then Ocean will always be remembered with fondness," laughs Mark Jones (a graphic designer who spent two years at Ocean) recalling the terrible state of those two games.

Jones, starting at Ocean in January 1987, worked on some of the developers more classic games from *Total Recall*, *Gryzor* and *Wizball* to *Arkanoid*, *Vindicator* and *Rambo III*. By this time, Ocean was establishing its brand and sales were buoyant. Ocean, with a £10 million turnover, was employing 62 staff and had sold three million games for a range of computer formats. It had also snapped up Imagine Software – one of the high-profile casualties of a downturn in sales in the mid-Eighties. Imagine, based in Liverpool, had a reputation for producing excellent games for the 8-bit machines with *Renegade* and *Yie Ar Kung Fu* just two of the classics.

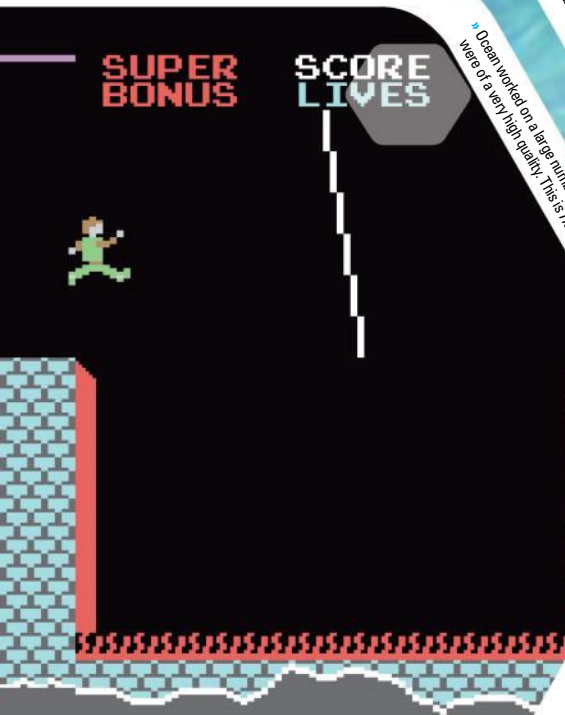
But in that pursuit of excellence, financial control had gone by the wayside, so Imagine – and its international reputation – was cemented with the Ocean brand and became devoted to arcade games, in particular conversions from Konami coin-op titles such as the aforementioned *Yie Ar Kung Fu* and *Hypersports*.

This meant Ocean was getting bigger than ever, in both financial and influential terms. Not only was it able to tap into the vast talent at Imagine Software, its own programmers were starting to knock out some outstanding titles and they were beginning to really enjoy themselves. Jones certainly recalls being impressed by the firm when

DEVELOPER LOOKBACK



Bill Harrison had a problem drawing the Batmobile. So he got... He bought the toy! were of a very high quality. This is a flashback, and it's ace.



OCEAN'S FREELoad

Nobody liked loading games from tape and all were grateful to Paul Hughes for creating Ocean's Freeload which quickened the process and provided protection against piracy. The first Ocean game to use Freeload was *Wizball* on the Commodore 64 in 1987. It replaced a previous tape loader, displaying a picture and, on the C64, playing music as the game loaded.

The loader came complete with an excellent tune, created by Martin Galway, Peter Clarke or Johnathan Dunn. "They were all prolific musicians," Hughes says. "You just asked for a new piece for the loader and they'd oblige."

When Ocean released its budget label, Hit Squad, the games were duplicated by Ablex in Birmingham. A cheap duplication machine was used which couldn't duplicate Freeload at high speed and Hughes had to slow the loader down, which led to Jon Dunn having to write new loading music. "His original tune was too short and ran out before the load finished," Hughes laughs.



he went for an interview in December 1986. "My interview, which I attended with my mum because I'd never been on a train on my own let alone gone to a different town, was relaxed," he says. "Gary Bracey was very friendly. The general feel of the place was that we all wanted to do our best and produce games that were as good as we could make them."

Ocean rewarded this work by crediting the programmers, artists and musicians on the games themselves, a rarity at the time, and this helped to motivate the staff.

Jones says: "These games were going out with our names on them as well as the Ocean or Imagine name. You wanted them to be good. If not just for the good of the company but for selfish reasons too. If it had 'Mark R. Jones' on it, I didn't want anything to look rubbish."

While the programmers toiled at their keyboards, Bracey and games producer Lorraine Broxton wandered around, taking an active interest in what was going on, what was new and what had been changed.

Other games programmers also took regular screen breaks to see what others were doing.

Jones says: "You couldn't just sit there at your computer screen from 9.30am till 5pm. Sometimes it would get to the stage where you'd been looking at a game for so long, you couldn't tell if it was any good or not. It meant everyone was aware of what everyone else was doing – if you'd produced something bad, there would be no beating about the bush."

Jones' first project was *Wizball*. He had never produced an animated sprite before so gained help from Simon Butler and Ronnie Fowles, who'd just finished the graphics for *Short Circuit* and were in the late stages of *Arkanoid*, both for the Spectrum. "They explained to me how to use the in-house Ocean animation program. This was an amended version of Melbourne Draw with animation capabilities," Jones says. But he is still not happy with the result, despite the game achieving both a Crash Smash and Sinclair User Classic.

He says: "The programmer of *Wizball* was also new and lots of stuff I'd created was left out. All I see when I look at it is what it could have been. The programmer left the project a month before it was due to be completed and it had to be handed to Paul Owens to finish."

Although Ocean developed many original titles, film licences were king. Videogaming was still in its infancy, although movie merchandising had been prevalent ever since *Star Wars* became a multi-million spin-off industry in 1977. But until Ocean appeared, making the game-of-the-film was still relatively unheard of. Some companies had tried it and been bitten – Atari spent \$22 million on *ET: The Extra Terrestrial* only to end up with a terrible game and extremely low sales. Ocean was determined to do it right.

Bracey said: "At first, you could get the licences themselves relatively inexpensively as the movie companies hadn't yet realised the potential income that could be generated so we snapped them up. Eventually, we were building such a strong track record in terms of sales for licensed games, that I started to get flooded with scripts from movie companies actually wanting us to license their titles. That meant key titles like *Batman* weren't that hard to acquire."

One of Ocean's best movie licenses was *Robocop* – Bracey's favourite. "The box-office was pretty good for this low budget movie, and we produced a first-rate game based on it. We then went on to sub-licence and produce the game on all other formats including the new NES console system and an actual coin-op machine. The game sold millions of units in all of its entities and it was probably one of the most lucrative titles Ocean ever had – I seem to recall that the licence was not terribly expensive."

But there were some mistakes. Artist Brian Flanagan says: "We went after some crazy stuff, like *Michael Jackson's Thriller* for the NES and there was mention of a U2 bid – neither came to fruition. "There was also *Radio Flyer*, a licence apparently based around a popular American child's 'pull kart' thing. After reading the script, it turned out the film was about child abuse! Great gaming material there. Obviously

When Ocean first started out, it wasn't all that different from other popular arcade games of the time. This is *Gilgar's Gold*, a clone of *Banban*.

Left to right: Top man; Gary Bracey was software director from 1985 to 1995. Brian Flanagan: Co-founder; David Ward created Ocean and raked in the cash. He is now boss at iPhone, which makes games for mobile phones. Graphic genius; Artist, Simon Butler, worked on loads of Ocean games including *NOMAD*, *Miami Vice*, *Total Recall*, *Navy Seals* and *Addams Family*.

the game was axed before anything was programmed." But of all the games which stick in the mind, Bracey says his biggest error was *Hudson Hawk*. "That was easily the worst license I acquired," he says cringing at the memory. "The film turned out to be a dreadful, self-indulgent pile of crap and the game was no better. The problem was that the script was one of the best I had ever read. Unfortunately, what ended up on the screen was a far cry from the script I had been given. Thanks Mr Willis!"

Yet Ocean came in for widespread criticism for its film licences, with many branding them formulaic platformers. The company always contested that it was what people wanted and the games certainly continued to top the charts – Bracey notes confidentially that during his nine years at the company, Ocean generated more than 100 chart number ones.

Although Bracey has admitted the majority of games weren't anything special, he puts that down to the sheer quantity of titles Ocean produced, yet firmly believes there were many gems which hit the mark – not least *Batman*, which had many sub-games, *Robocop 3*, enhanced by its driving and shoot-'em-up sections, *Addams Family*, a massive platform game, and *Hook*, a true adventure game. And he points to the solid hits *F-29*, *Battle Command*, *Push Over*, *Sleep Walker* and *Wizkid*, as notable, original 16-bit games.

Nevertheless, film licences were the most important and the need to get them out at around the same time as the movie put a lot of pressure on Ocean's staff, who were often given very strict deadlines.

This would mean some heavy stints for the programmers and it was not unknown for some of them to work a shift far in excess of 24 hours to get the game finished and down to the duplicators.

Any laughter that would usually emanate from down below in the basement would quieten during these tense periods of time. Programmer Paul Hughes said: "The in-house crew had some absolutely incredible talent that didn't blink at the thought of working 72 hours straight and then driving to the duplicators with the master."

But despite their hard work, the programmers were always last to find out about the new movie tie-ups and so would engage in a little skulduggery. Jones says: "The first we would hear about the latest deals was when film companies would send scripts, photo stills and promotional material.

"It would always do us good to have a discrete nose round Gary Bracey's desk when he wasn't there – I can say that now, I'm sure he knows – everyone did it!"

Arcade licences were equally important to Ocean. Between 1983 and 1992, half of all the games Ocean released were based on coin-ops or films. And they threw up their own problems, mainly for the programming staff. Ocean's bosses would approach their programmers with the latest state-of-the-art, all-singing, all-dancing arcade machine – telling them their next project was to convert it to the humble Spectrum, C64 or Amstrad.

As Simon Butler recalls, "It was a challenge, but also a major pain."

Many of Butler's games were coin-op conversions or film licenses. He worked on titles spanning almost all of Ocean's lifespan from *The Never-Ending Story*, *Platoon*, and *Combat School*, to *Total Recall*, *Darkman*, and the *Addams Family* and all had to be faithful to the film or arcade, a difficult task.

It was a challenge also faced by graphic designer Bill Harbison, who joined Ocean in March 1988.

"I was really proud of my coin-op conversion of *Chase HQ*," he says when we asked him about his excellent conversion. "We had the arcade machine of *Chase HQ* so I could copy the graphics, although we didn't have the technology to strip the graphics from the arcade board so I played the game with one hand and had a pencil in the other to make sketches. *Batman* was easier, the only difficulty being I had little reference material to draw the Batmobile convincingly in 3D and couldn't get it right – even with a week to go to completion. Luckily some *Batman* toys were available. I bought myself a small Batmobile and used it to draw the finished sprites."

OCEAN AND AMSTRAD

When Amstrad decided to produce its ill-fated GX4000 console, it knew it needed some big names to back it up. And at the time – 1990 – Ocean was the top software house and the two companies soon came to a deal, along with Gremlin, Titus, Loricel, and Domark.

Amstrad gave the companies free reign to create any game they wanted, the only stipulation was that the packaging had to follow a pre-set format. Ocean then knocked out a series of games although, sadly, many were straight ports of existing CPC titles, only sold at vastly inflated prices.

But then, money was the important thing. Sir Alan Sugar said as much at the launch. "We don't just see this as Amstrad fighting Nintendo and Sega," he said, talking about the battle for console dominance. "We see this as Amstrad, together with companies such as Ocean and others who want to make some money and who do not want to be dictated to, fighting against these people."

Ocean's *Burnin Rubber* game was created specially for the GX4000 and was bundled with the machine.

Ocean also created games for another 8-bit inspired console, the Commodore 64GS. Unfortunately, that too ultimately failed.

DEVELOPER LOOKBACK



Combar School was an excellent port for the Commodore 64, with a fan multiplayer mode. [Insert] Graphic designer Mark Jones.



Ocean worked on a number of impossibly slick platformers. *The Addams Family* was one of its best.

"OF ALL THE GAMES WHICH STICK IN THE MIND, BRACEY SAYS HIS BIGGEST ERROR WAS HUDSON HAWK. 'THAT WAS EASILY THE WORST LICENCE I ACQUIRED, THE FILM WAS A PILE OF CRAP'"

MAGAZINES

"Everyone hated us," says Jonathan Smith - but was that the case? Certainly, the top computer magazines of the 1980s and early 1990s thrived off Ocean - if only because of its advertising.

Gary Bracey says: "Obviously, we spent a small fortune advertising in magazines and so they were wary of upsetting us too much. But in general, if one of our games sucked then they said so and were equally enthusiastic if the title warranted it."

Mark Jones agreed: "From my experience the magazines loved Ocean. They were always nice and friendly when they came round. Every now and again you'd get a mag come in and do the rounds, having a look at what was in development. They'd sit down and you'd talk them through what you were doing, what stage the game was at and what was to be done. Ocean were always given good write-ups when the magazines were previewing games. We'd do what we could for the magazines, providing screenshots and sometimes demos for them to take away."

There were some problems, however. Bracey says: "There were one or two journalists who just hated Ocean and we knew that they would always give us a poor score no matter what the game genuinely deserved."

While developing a game, staff would wear many hats including those of storyboard artist, producer, character designer, game designer, and copywriter. Butler says: "We got involved in many parts of the game and we cared for them. It rankled when we were pipped to the number one slot in the charts or when we missed out on a plum licence or franchise."

Much of that was because Ocean's greatest rival, US Gold, was breathing down their necks, even though Ward and Woods had a large stake in the company. From time to time, the two companies worked together, particularly on compilations, bringing together the best of both firms in treats such as *They Sold A Million* including Ocean's *Daley Thompson's Decathlon* and US Gold's *Beach Head*. But in every other respect, the pair were at war. When they became concerned there were budget houses flogging software for £1.99 as opposed to full price, they each set up rival low-price labels, US Gold forming Kixx and Ocean creating The Hit Squad, to sell old games first at £2.99, later at £3.99.

Bracey said: "There really was serious rivalry between Ocean and US Gold. We wanted to be the best and wouldn't rest on our laurels. But as time passed and we entered the console era then I think our main competitors became companies like Acclaim - though the competition and desire to be the best remained."

Competition extended inwards too. Butler says: "There was a sense of camaraderie at Ocean but also a healthy sense of competition between the various teams; to top the animation, to better the graphics or, in the coder's field, to have more sprites, bigger sprites - for your code to be better or faster."

"But it got harder with the 16-bits," adds Jones. "Instead of a few hours putting pixels in the right place to make a character die convincingly on the 8-bits, you spent double the time making sure the shading was correct or light was coming in from the same place."

As time went by, Ocean adapted to the changing market conditions. Games switched from being programmed by a few to being tackled by

masses. And the threat of the big American and Japanese companies was brushed aside, with Bracey saying Ocean was excited and not scared by the challenge.

Ocean had spent a couple of years in the early Nineties worrying about how the industry was going to develop. But around 1994, it set up a new in-house development team, Tribe, and head of software development Ian Turnbull decided a professional, structured way of working was needed if Ocean was to make the massive jump from 8/16-bit to 32/64-bit.

Separate teams were created, each having a team leader, lead programmer and designer. Games were developed off-screen six months before any coding began and by 1996 there were 80 Tribe staff members. But in that same year, French firm Infogrames came sniffing and snapped up Ocean. It retained the Manchester office for development until Infogrames bought Gremlin in 1999 and programming was moved to Sheffield. Not long after, the Ocean brand was dropped. *GT 64 Championship Edition* for the Nintendo 64 was the last game by Ocean in 1998.

Flanagan said: "The initial feeling when Infogrames took over was good. We had a new shiny building, and this strange French megacorp was going to put lots of money into the company. But then certain games weren't released. I was working on *The Shadow* for the SNES and Mega Drive and had designed the sprites and a large proportion of the backgrounds. I also designed the game and was the lead artist but, sadly, the game was never released as the filmed bombed massively."

Many of the old Ocean guys - and gals - have not gone away completely, however. As well as most being involved in the industry in some way, they also chat on the forums at - www.theoceanexperience.co.uk.

Jones added: "It's sad in a way that the Ocean name has gone but good in another. I guess it means it will always remind misty eyed 30-something gamers of a time when games didn't have to rely on fancy FMVs and flashy graphics in order to impress."

1983

Royal Birkdale: Championship Golf (Spectrum)
Digger Dan (Spectrum)
Island Of Death (Oric)
Armageddon (Spectrum)
Rescue (Spectrum)
Pogo (Spectrum)
Android 2 (Spectrum, C64)
Rollerball (C64)

1984

Gift From the Gods (Spectrum)
Gilligan's Gold (Spectrum, C64, Amstrad)
Robotics (Spectrum)
Eskimo Eddie (Spectrum, C64)
Hunchback (Spectrum, C64, Amstrad)
Bruce Lee (Spectrum)
Mr. Wimpy (Spectrum, C64)
High Noon (Spectrum, C64)
Cavelon (Spectrum, C64)
Moon Alert (Spectrum)
Daley Thompson's Decathlon (Spectrum, C64, Amstrad)
Chinese Juggler, The (Spectrum, C64)
Kong (Spectrum, C64)
Transversion (Spectrum)
Bangers and Mash (C64)
Spellbound (C64)

1985

Hunchback 2: Quasimodo's Revenge (Spectrum, C64, Amstrad)
Kong 2: Kong Strikes Back (Spectrum, C64, Amstrad)
Match Day (Spectrum, C64, Amstrad)
Neverending Story, The (Spectrum, C64, Amstrad)
Daley Thompson's Supertest (Spectrum, C64, Amstrad)
Pud Pud in Weird World (Spectrum)
Rambo (Spectrum, C64, Amstrad)
Frankie Goes to Hollywood (Spectrum, C64, Amstrad)
Tornado Low Level (Spectrum, C64)
Roland's Rat Race (Spectrum, C64)
A Fistful of Bucks (C64)
Cosmic Wartoad (Spectrum)
V (Spectrum, C64, Amstrad)

1986

Platoon (Spectrum, C64, Amstrad, Amiga, Atari ST)
Street Hawk (Spectrum, C64, Amstrad)
N.O.M.A.D. (Spectrum, C64, Amstrad)
Nightmare Rally (Spectrum)
Donkey Kong (Spectrum, C64, Amstrad)
Superbowl (Spectrum)
Great Escape, The (Spectrum, C64, Amstrad)
Gryzor (Spectrum, C64, Amstrad)
Nexus (Spectrum)
Miami Vice (Spectrum, C64, Amstrad)
Helikopter Jagd (C64)
Highlander (Spectrum, C64, Amstrad)
Transformers (Spectrum, C64)
Hunchback II (Spectrum, C64, Amstrad)
Hunchback - The Adventure (Spectrum, C64)
Cobra (Spectrum, C64, Amstrad)
Mailstrom (Spectrum)
Laser Sprite Generator (Spectrum)
It's A Knockout (Spectrum, C64, Amstrad)
Knight Rider (Spectrum, C64, Amstrad)
Batman (Spectrum, C64, Amstrad)
Army Moves (Spectrum)
Parallax (Spectrum, C64)

1987

Wizball (Spectrum, C64, Amstrad, Amiga, Atari ST)
Short Circuit (Spectrum, C64, Amstrad)
International Match Day (Spectrum, C64, Amstrad)
Mario Bros (Spectrum, C64, Amstrad)
Starace (C64)
Match Day 2 (Spectrum, C64, Amstrad)
Slap Fight (Spectrum)
Flashpoint (Spectrum)
Top Gun (Spectrum, C64, Amstrad)

Double Take (Spectrum, C64)
Mutants (Spectrum, C64)
Tank (Spectrum, C64, Amstrad)
Tai-Pan (Spectrum, C64, Amstrad)
Head Over Heels (Spectrum, C64, Amstrad, Amiga, Atari ST)
Road Race (Spectrum)
Super Bowl XX (Spectrum, C64)
Combat School (Spectrum, C64, Amstrad)
Eco (Amiga, Atari ST)

1988

Gutz (Spectrum, C64)
Typhoon (Spectrum, C64, Amstrad)
Cabal (Spectrum, C64, Amstrad, Amiga, Atari ST)
Emilio Butraguemo 1 (Spectrum, C64, Amstrad)
Operation Wolf (Spectrum, C64, Amstrad, Amstrad GX4000, Amiga, Atari ST)
Rambo 3 (Spectrum, C64, Amstrad, Amiga, Atari ST)
Phantom Club (Spectrum, Amstrad)
Firefly (Spectrum, C64)
W.E.C. Le Mans (Spectrum, C64, Amstrad)
Batman - The Caped Crusader (Spectrum, C64, Amstrad, Amiga, Atari ST)
Psycho Soldier (Spectrum)
Track & Field (Spectrum)
Daley Thompson's Olympic Challenge (Spectrum, C64, Amstrad)
Madballs (Spectrum, C64, Amstrad)
Moonshadow (C64)
Where Time Stood Still (Spectrum)

1989

Red Heat (Spectrum, C64, Amstrad, Amiga, Atari ST)
Chase HQ (Spectrum, C64, Amstrad, Amiga, Atari ST)
Operation Thunderbolt (Spectrum, C64, Amstrad, Amiga, Atari ST)
Robocop (Spectrum, C64, Amstrad, Amiga, Atari ST, GameBoy)
Run the Gauntlet (Spectrum, C64, Amstrad, Amiga, Atari ST)
Beach Volley (Spectrum, C64, Amstrad, Amiga, Atari ST)
Batman - The Movie (Spectrum, C64, Amstrad, Amiga, Atari ST, PC)
New Zealand Story, The (Spectrum, C64, Amstrad, Amiga, Atari ST)
Untouchables, The (Spectrum, C64, Amstrad, Amiga, Atari ST, NES, MSX)
Emilio Butraguemo 2 (Spectrum)
F29 - Retaliator (Amiga, Atari ST, PC)
Voyager (Amiga)

1990

Shadow Warriors (Spectrum, C64, Amstrad, Amiga, Atari ST)
Robocop 2 (Spectrum, C64, Amstrad GX4000, Amiga, Atari ST, GameBoy)
Rainbow Islands: Bubble Bobble 2 (Spectrum, C64, Amstrad, Amiga, Atari ST, GameBoy)
Midnight Resistance (Spectrum, C64, Amstrad, Amiga, Atari ST)
Puzznic (Spectrum, C64, Amstrad, Amiga, Atari ST)
Sly Spy: Secret Agent (Spectrum, C64, Amstrad, Amiga, Atari ST)
Chase HQ 2: Special Criminal Investigations (Spectrum, C64, Amstrad GX4000, Amiga, Atari ST)
Narc (Spectrum, C64, Amstrad, Amiga, Atari ST)
Plotting (Spectrum, C64, Amstrad, Amiga, Atari ST)
Pang (Spectrum, C64, Amstrad GX4000, Amiga, Atari ST)
Night Breed (Spectrum, C64, Amstrad, Amiga, Atari ST)
Adidas Championship Football (Spectrum, C64)
Adidas Championship Tie-Break (Spectrum)
Lost Patrol (Amiga, Atari ST, PC)
Ivanhoe (Amiga)
Shadow Of The Beast (C64, Amstrad, Amiga, Atari ST)
Burnin Rubber (GX4000)

1991

Toki (Spectrum, C64, Amiga, Atari ST)
Navy Seals (Spectrum, C64, Amstrad, Amiga, Atari ST, GameBoy)
Double Dragon (Spectrum, C64, Amstrad, Amiga, Atari ST)
Total Recall (Spectrum, C64, Amstrad, Amiga, Atari ST)
Battle Command (Spectrum, C64, Amiga, Atari ST)
Smash TV (Spectrum, C64, Amstrad, Amiga, Atari ST)
Simpsons: Bart Vs The Space Mutants (Spectrum, C64, Amstrad, Amiga, Atari ST)
Hudson Hawk (Spectrum, C64, Amstrad, Amiga, Atari ST)
Darkman (Spectrum, C64, Amstrad, Amiga, Atari ST, NES, Game Boy)
Terminator 2: Judgement Day (Spectrum, C64, Amstrad, Amiga, Atari ST)
WWF WrestleMania (Spectrum, C64, Amstrad, Amiga, Atari ST)
Addams Family, The (Spectrum, C64, Amstrad, Amiga, Atari ST, SNES, Game Boy)
Elf (Amiga, Atari ST, PC)

1992

WWF European Rampage Tour (C64, Amiga, Atari ST)
Cool World (C64, Amiga, Atari ST, NES, Game Boy)
Robocop 3 (Spectrum, C64, Amiga, Atari ST, NES)
Spacegun (Spectrum, C64, Amiga, Atari ST)
Epic (Amiga, Atari ST, PC)
Hook (C64, Amiga, Atari ST, SNES, NES, Mega Drive, Game Boy, Game Gear)
Lethal Weapon (Spectrum, C64, Amstrad, Amiga, Atari ST, SNES, NES, Game Boy)
Parasol Stars: Rainbow Islands II (Amiga, Atari ST, PC, Game Boy)
Pushover (Amiga, Atari ST, PC, SNES)
Sleepwalker (C64, Amiga, Atari ST)
Wizkid (Amiga, Atari ST)

1993

Dennis The Menace (Amiga, Amiga CD32, SNES, Game Boy)
Jurassic Park (Amiga, NES, Mega Drive, Sega Master System, Game Boy, Game Gear)
Ryder Cup Golf (Amiga)
Shut-It (PC)
Retee 2 (Amiga)

1994

Inferno (PC)
Eek The Cat (SNES)
Jungle Strike (Amiga, Amiga CD32)
Kid Chaos (Amiga)

1995

The Raiden Project
Mr Nutz (Amiga, Sega Mega Drive, SNES, Game Boy)

1996

Break Point (PlayStation)
Cheesy (PlayStation)
Tunnel B1 (PlayStation, Sega Saturn)
World Rally Fever (PC)
X2 (PlayStation)
Zero Divide (PlayStation)

1997

(I-War) (PC)
Jersey Device (PlayStation)
Total Drivin (PlayStation)
Multi-Racing Championship (N64)

1998

Fighters Destiny (N64)
Mission: Impossible (N64)
Wetrix (N64, PC)
Viper (PlayStation)
Zero Divide 2 (PlayStation)
GT 64 Championship Edition (N64)

THE CLASSIC GAME

IMPOSSIBLE MISSION

Our mission – should you choose to accept it – is to infiltrate the base of professional full-time megalomaniac Professor Elvin Atombender.

Atombender is threatening to perform genocide through the hacking of national security computers in order to launch a nuclear missile strike. We have traced Atombender to his underground silo and have assigned you the impossible mission of putting a stop to his plan. This mission will be tough, this mission will be fraught with danger and this mission will self-destruct in six hours, so get your skates on. Oh, and make sure you take a short minute break after four hours – we really don't want Bridget from HR breathing down our backs. You know how she gets.



PROF. ELVIN ATOMBENDER

With the name Atombender, you could argue Elvin was destined for a gainful career as an evil mastermind, or a superhero. Elvin is the balding spectacle-wearing villain of the piece. From his underground stronghold he's trying to hack global security systems to launch an attack on the world.



AGENT 4125

The hero of *Impossible Mission* goes by the name – or, rather, number – of Agent 4125. It doesn't roll off the tongue like 007, and kind of gives the impression that the administration he's employed by is either heavily overstaffed or rubbish at spy training.

ROVER BALL

As well as droids, the player must also be wary of these *Prisoner*-inspired electrified black balls that guard some of Professor Atombender's rooms. Far more aggressive than the droids, most will annoyingly hone in on 4125 killing him on contact.



DROIDS

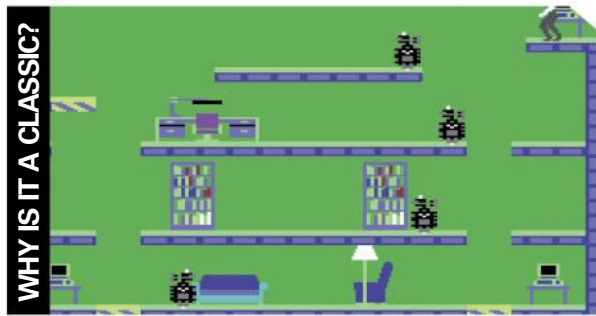
Atombender has a series of security droids patrolling his underground base to attack any unwanted visitors, such as you. These Dusty Bin-style droids have various attack types: some will chase the player, others behave erratically and some fire lasers.



COMPUTERS

If you've found an 'init lift' or 'snooze' code then you can upload it to one of these computer terminals to either reset the lifts or put all the machines inside that room into temporary sleep mode. This makes searching objects in well-guarded rooms far easier.

WHY IS IT A CLASSIC?



It's just impossibly good

A solid C64 classic, *Impossible Mission* wowed gamers and critics on its release thanks to a mix of great visuals, slick animation, and James Bond-style spy themes (although the game was said to actually have been more inspired by the movie *WarGames*). On top of this, the game also had that all-important one-more-go quality, brought about by a six-hour deadline looming over the player and the fact that the game's level layouts regenerated – it's the game that kept on giving. *Impossible Mission* is essentially the thinking person's platformer, and remains the ultimate espionage action game for the C64.

STANDOUT MOMENT #1



Mouthy megalomaniac

For many fans, the best moment of *Impossible Mission* was Elvin's unsettling audio welcome at the start of the game. "Another visitor. Stay a while... staaaay forever!" the wanton Professor cackled as the player began their mission. Arguably one of the most memorable bits of digitised speech to appear in a C64 game, it served as a chilling and telling greeting to the mission, and also filled the player with a sense that Atombender's foreboding underground lair has been a mausoleum for a number of spies in the past – quite possibly 4,124 of them, in fact.

NAME'S 4125, AGENT 4125...



The sociable secret agent

Unlike most secret agents, 4125 doesn't appear to have been given a licence to kill. In fact, he doesn't even have a licence to harass. The passive hero must infiltrate Atombender's base, and save the free world relying solely on his hacking skills, somersaults and his pocket computer. At the time of *Impossible Mission*'s release, the 4125 sprite stood out thanks to his dashing good looks and the smooth and realistic way he animated. Consequently, he fast became a popular element of *Impossible Mission* and was later reused in the game's direct sequel.

POSSIBLE MISSION?



Your mission, debriefed... briefly

Despite what its title insinuates, your mission was actually pretty straightforward. Agent 4125 has just six in-game hours – with each death docking ten minutes off the time limit – to find the nine parts of a password that will gain him entrance to Atombender's control room. 4125 must venture throughout the evil professor's labyrinthine underground hideout and search his furniture (Atombender is a little careless it would appear) for the 36 puzzle pieces and then decipher the nine-letter password. With the code cracked, entry to the control room is granted and the game is finished.

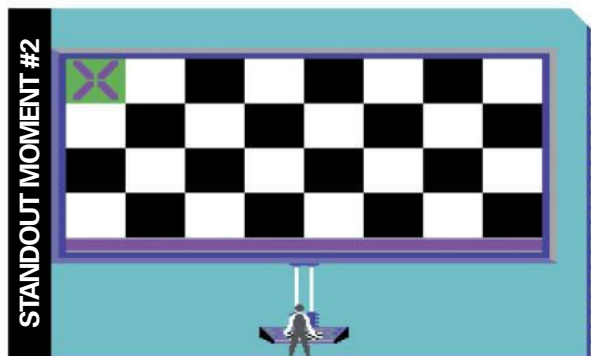
IMPOSSIBLE MISSION



Impossible by name...

Owing to the random generation characteristic of *Impossible Mission*, the droid types, rooms and password pieces would be scattered around Atombender's lair during the loading process, completing the game could either be relatively easy or nigh on impossible depending on what sort of mood luck was in that day. However, the Atari 7800 NTSC version did come with a nasty glitch that rendered its account of the mission sometimes impossible. This version was notorious in that it would generate the puzzle pieces beneath the computer terminals, which made them irretrievable.

STANDOUT MOMENT #2



A brief musical interlude... twice

During its construction, Elvin ordered the builders to install two code rooms in his base, which seem to be there for no reason other than to earn agents further 'snooze or 'init' passwords. We won't grumble, though. Kind of resembling the set of *Catchphrase*, upon entering these rooms the player has to listen to a brief musical composition of flashing squares, and, using a glove cursor, had to then replay the notes back in ascending order to win a code. You can replay this mini-game as many times as you like, although the tunes do get increasingly more difficult to follow.

What the press said... ages ago

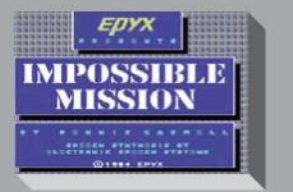


Zzap!64

You're looking at one of the greatest programs ever written. The graphics, animation, sound, speech and gameplay combine perfectly to create a fabulous atmosphere.

What we think

It might be one of the C64's earliest titles, but some 26 years on *Impossible Mission* still manages to impress and feel fresh. As *Zzap!64* rightly said, it's a visual and audio treat wrapped around some great everlasting gameplay.

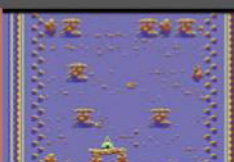


IN THE KNOW

- PUBLISHER: US GOLD / EPYX
- DEVELOPER: EPYX
- RELEASED: 1984
- GENRE: PLATFORM
- EXPECT TO PAY: A FEW QUID

An unlikely hybrid of racing game and scrolling shooter, *Alleykat* was Andrew Braybrook's technically stunning sequel to *Uridium*. Mike Bevan looks behind the starting grid with its talented developer

ALLEYKAT



ALLEYKAT 101

■ *Alleykat* is a unique mixture of futuristic racing and shoot-'em-up action. Players fly a transforming craft across obstacle-strewn courses blasting hazards and robotic enemies, trying to survive long enough to complete the required number of laps. The goal is to win enough prize money to enter the season's final race and become Alleykat Champion...

It's 1986 and programmer Andrew Braybrook is riding a wave of popular support buoyed by two high-profile games for the Commodore 64, the Zzap! Gold Medal-winning *Paradroid*, and the space-themed shooter, *Uridium*. Just one year after his first original C64 title, *Gribbly's Day Out*, Andrew has become one of the most acclaimed and recognisable talents programming on Commodore's machine. With *Uridium* he will soon be the recipient of two prestigious Golden Joystick awards, receiving a prize for Arcade-style Game Of The Year, and becoming the first C64 coder to take the title of Programmer Of The Year. Unsurprisingly, expectations are sky high for his next offering, *Alleykat*. Given this background, we want to find out if he was at all anxious about equalling his previous projects, and matching the silky-smooth arcade feel of his smash-hit shoot-'em-up. "I didn't feel too much pressure as I had different presentation ideas from one

game to the next," Andrew muses. "I just got on with coding..."

"As *Uridium* was doing well, it gave me confidence, and I was keen to push the boundaries of what I could do on the C64. I wanted to scroll the whole screen, have shadows on all the objects and have less linear gameplay so the player could choose their route through the game. As I wanted to do something different again, I picked a scrolling racing game."

In *Alleykat*, players take the role of an inter-planetary racer negotiating a series of courses built around the

rims of orbiting space-stations. It's a sort of cross between Formula One and the setting for *Halo*, with grandiose names for each event like Superspin Chase, Astro Classic and Zero-G Hurdle. The *Alleykat* season comprises of 32 courses packed with obstacles and hazardous opponents, each requiring a certain number of laps to conquer. The goal of the game is to complete enough races and accumulate the prize money to enter the legendary Alleykat Final, the ultimate galactic racing challenge.

With its unusual isometric viewpoint and eye-catching



» Crossing the finish line at high speed to go around again for another lap.



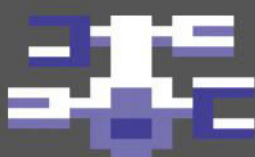
» Andrew apologises for making you fly through this giant skull at the beginning of the final race...

GRAVO CRAFT

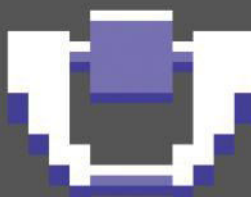
The enemies of Alleykat



FIN-PULLER
100 POINTS



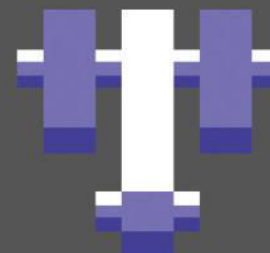
FOUR
100 POINTS



BARROW-PADDLER
200 POINTS



DUO-PADDLER
250 POINTS



NUTS 250 POINTS



» The slimmer Glide mode allows you to fly faster and negotiate tricky narrow gaps...

shadowed backdrops, *Alleykat* looks quite different from the scrolling metallic super-dreadnoughts of *Uridium*. One of the inspirations for *Alleykat*'s visual style was a game by Activision that started life on Atari's 8-bit home computers. "I had just bought an Atari 600XL and got a few games with it. *Pastfinder* was one of them," Andrew recalls. "I played a lot, and I hadn't seen anything like it. I liked its look and that it gave a different viewpoint. The idea of the main character sprite passing over and under parts of the background was interesting. [On the C64] the multi-colour mode supported two colours for solid objects, a background colour and a shadow colour. This meant seeing only two faces of the solid objects but giving them shadows to produce a solid look."

Like *Pastfinder*, Andrew's game granted players the firepower to destroy the pesky drone craft. Additionally it allowed you to take out most of the scenery on many

courses, a feature particularly useful in the Demolition Derby events. "I was thinking about what sort of things could be done with a fast vertically scrolling screen and destructible backgrounds, and realised that I was short of sprites, so instead of racing other vehicles that

"I was keen to push the boundaries of what I could do on the C64"

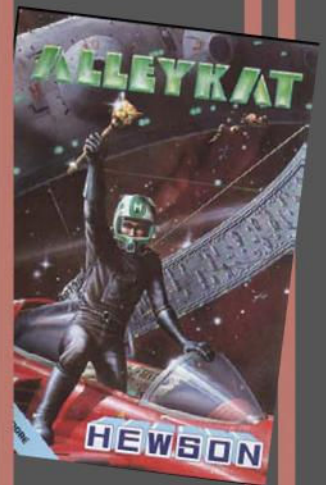
Andrew Braybrook

could be anywhere on the race track, I had to keep objects feeding through the main visible area to disrupt what the player was trying to do, without [making the game] too difficult. So it's only a sort-of race game, more of a challenge, like an assault course."

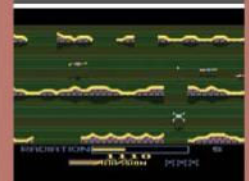
Andrew also looked to some of his past projects for inspiration, along with several coin-op titles. "There are elements of *Uridium* in there with the

control mode," he explains. "The backward loops are an extension of *Uridium*'s half loop and roll out. They afforded a brief moment of protection, something the arcade games 1942 and 1943 also did. There's a bit of *Space Harrier* in there too that inspired the Katerkillers, and

the game owes the less-rigid routes through the levels and the energy system to *Gribbly's Day Out*." Like *Uridium*, Andrew packed a surprising amount of control features onto the C64's one-button joystick, with the ability to pull the aforementioned loops, dive, climb, accelerate and decelerate your craft, and even transform between two modes of flight. Players could switch in-game between a heavily armed ship with wing-mounted cannons and the sleeker, more agile 'Glide' mode, useful for nipping through narrow gaps in the scenery. Curiously, the inspiration behind this



» Publisher Hewson's box cover-art for the European release.



» *Pastfinder* was one of the influences for *Alleykat*'s visuals.

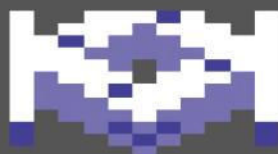


» Early races, like this 'Shatter-rock' course, are much simpler.



» Later races increase the density of obstacles.

ONE-TRACK
300 POINTS



DIAMOND FLYER
400 POINTS

ORBITER
500 POINTS



KATERKILLER
2500 POINTS



IN THE KNOW

» **PUBLISHER:** Hewson Consultants

» **DEVELOPER:** Graftgold

» **RELEASED:** 1986

» **PLATFORM:**

Commodore 64

» **PLATFORM:** Racer / Shoot-'em-up

► neat little touch appears to have come from a certain Stringfellow Hawke...

"I'd probably been watching a lot of *Airwolf* on TV and noted that they didn't keep the guns out all the time for aerodynamic reasons, so I had a speed-limited guns mode and a faster mode without the side guns," Andrew reveals. "The game also spends time pulling the guns in to perform the loop, as I didn't want to deal with bullets going up in the air or backwards. If the guns were out it redeployed them when the loop was done. The control mode is one of the things that takes the longest to get right. I needed three-dimensional movement from a 2D stick and one button for firing. It worked pretty well and I was quite pleased with it."

Andrew developed a clever algorithm which meant that races never played out quite the same, meaning players couldn't simply learn the map layouts to prevail. "The tracks were created partially randomly," he reveals. "I set the variation in distances between rows of graphics, for example the fences, and also set the possibility of clear space versus blockages. I had whole and destroyed versions of the background pieces to update the map as the game progressed. The chance of any background being destroyed by a bullet was also controlled, from one shot taking it out every time all the way to the indestructible skulls



» Slalom races award extra points for flying between and under obstacles.

of the last race. The construction of the tracks allowed me to have more space for eight graphic styles."

Indeed, *Alleykat* players could expect to come up against a variety of environments from jungles and courses strewn with flimsy 'shatter-rock' to monolithic 'hardwall' levels and the ultra-nasty Skulnia challenges. There was also a welcome amount of freedom in the events that you could enter en-route to becoming Alleykat champion. "It didn't seem necessary to do all 32 levels every season, so I just gave the player more choices the better they did," says Andrew. "You earn more prize money and you can enter more races. The season stops not when you crash, but when you can't afford any more races, so I got rid of the

concept of 'lives'. You can also strengthen your ship against attacks by collecting the energy blocks on the ground, increasing your capacity for the next race, so you can take more damage."

One key strategy in *Alleykat* was to try and take out as many of the dangerous obstacles as possible in early laps before switching to glide mode to finish with a fast time. "The changing track as the race goes on was important," Andrew agrees. "Also collecting too many energy pickups wastes them, so you have to think about the later laps too. The other vehicles in the game can knock down scenery for you so it isn't always the best plan to just take them out quickly. I reckon that I should have battle-scarred the landscape where vehicles were destroyed, not just the main player. With lots more sprites I'd leave smoke and fires and do explosions and debris flying everywhere. I liked the fact that for the last race you have to go through the mouth of the skull at the start, and continue to negotiate the background carefully. The algorithm always left a way through and the other vehicles started knocking the pieces down to help you."



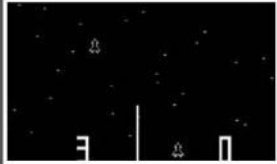
» Entering Gun mode gives you greater firepower to blast obstacles and dispatch the vicious Katerkiller.

» Pulling *Uridium*-style loops can help keep you out of trouble.



SPACEY RACERS

Five more off-world racing games



SPACE RACE

■ This was Atari's second coin-op after *Pong*, and took the form of a sort of interstellar drag-race. Two players competed in heading up the screen in rockets, trying to avoid contact with hordes of dot-like 'meteors'.



STAR RIDER

■ This rare laser-disc coin-op was developed by Williams Electronics and *Joust* creator John Newcomer. It featured spectacular pre-rendered courses, over which animated futuristic motorcycles were superimposed.



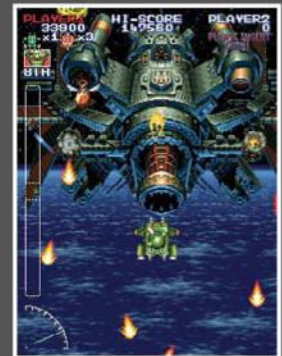
TRAILBLAZER

■ Starting life on the C16, Shaun Southern's two-player racer took place on a colourful chequer-like playfield. It's sequel, *Cosmic Causeway*, introduced obstacles and *Space Harrier*-like bosses.



GALAXY 5000

■ Released for the NES, *Galaxy 5000* was a light-hearted isometric racer with overtones of *Marble Madness*. One or two players could compete in a field of four ships with limited firepower to knock out opponents.

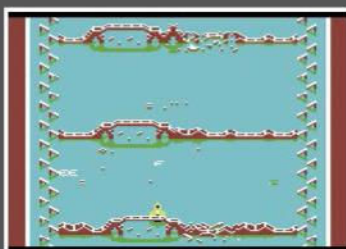


KINGDOM GRAND PRIX

■ Released on the Sega Saturn in Japan, Raizing's unique shooter is the only other game we know that feels similar to *Alleykat*. Only here you race competitors and battle giant bosses while trying to maintain your speed.

Alleykat features some of the fastest scrolling ever seen in a C64 game, particularly when going full speed in Glide mode. "The scrolling is running at the full 50fps, and 60 on the US version," says Andrew. "The top scroll speed in the game was eight pixels-per-frame so it was rebuilding 900 characters every frame. As the race completes it scrolls even faster, just because it can!" Andrew reveals how he put a lot of time into *Alleykat*'s sprite animation, particularly the ship, its crash animation, and the scary Katerkiller, with which collision meant instant death. "The sprites took a while because I wanted wacky designs and smooth animation. The large number of frames for the vehicles and player did leave me with less different objects, but animation gave life to them, so it was worth it. There was no sprite multiplexing; the bullets were all done with character graphics. Having a 'shadow' sprite for each vehicle meant I had four objects from eight sprites, and as I was using the full screen as a play area it left bare spaces at times."

"The Katerkiller used all six remaining sprites, at the expense of not having shadows," continues Andrew. "I really notice that. It



» It might look quiet at the moment, but carnage is just around the corner...

» On the harder race events a good strategy is to let the Gravo drones knock down the scenery for you.



wasn't until I met up with other programmers at *Zzap 64!* Towers after the game was finished that we discussed multiplexing the sprites, which I used in *Morpheus* and *Intensity*. Each game took me longer and longer to do... *Alleykat* took six months." The game's name also caused trouble in the USA due

“I just gave the player more choices the better they did”

Andrew Braybrook

to similar sounding title by Synapse Software. "We got told that the US publisher didn't like the name and wanted to change it, we were never told why. It was lamely called *Demolition Mission* over there."

Despite is technical wizardry, *Alleykat* arrived to a slightly more muted reception at C64 review magazine *Zzap!64* than Andrew's previous games. We wonder if Andrew was at all perturbed by reviewer Gary Penn's admission to being disappointed with the game, despite the gushing praise from fellow staff member Jaz Rignall. "It's more to do with whether your new

» Collecting the 'E' letters keeps your energy topped up, preventing premature destruction.



game matches up to someone's expectations, which are your previous game plus 50 per cent at least," he admits. "That becomes unachievable however hard you work. I always tried to do something different to avoid direct comparisons, but it happens. The *Zzap!64* review team certainly polarised. We got sales notifications and royalties every month, but I don't remember us ever adding up the total sales per title. It's likely that *Uridium* did better."

But overall Andrew still seems to regard

Alleykat as one of his finer moments on the C64, and it's a game that we'd urge those who like the sound of it to try at least once. "I liked the crash effect for the main ship, it sat well with my 'make a big entrance and a bigger exit' philosophy," he chuckles. "I was happy with most of it, just disappointed that people could progress by just flying fast up the side of the track and firing a lot. The speed of the scrolling made it difficult to control realistic attacks on the player." Then with a twinkle in his eye Andrew delivers one last thought: "No-one attempted to write this on the Spectrum, though, did they?"



» Andrew Braybrook is widely regarded as one of the C64's most talented coders.



DEVELOPER HIGHLIGHTS

GRIBBLY'S DAY OUT

SYSTEM: Commodore 64
YEAR: 1985

PARADROID (PICTURED)

SYSTEM: Commodore 64
YEAR: 1985

URIDIUM

SYSTEM: Commodore 64
YEAR: 1986



TOP 25



C O M M O D O R E

6 4 G A M E S



OF ALL TIME

You would need a separate book in order to list every single fantastic game that was released for Commodore's classic 8-bit home computer. As that's not really possible, we've decided to do the next best thing, by highlighting 25 firm fan favourites. How many of the following popular games have you played?





Stunt Car Racer

■ Year: 1989

■ Publisher: MicroStyle

25 It's a testament to Geoff Crammond's skill as a coder that two of his three C64 games made your list.

Stunt Car Racer managed to combine Geoff's love of physics with the thrills and spills of the arcade racers that were popular at the time.

Yes, it's not as good as the Amiga version, but in many ways *Stunt Car Racer* remains an astonishing achievement on the C64 thanks to its slick engine, carefully crafted track design and wonderfully tight controls.

Even today, *Stunt Car Racer* is fun to play, largely because of the aforementioned physics and intricate track design, which have really stood the test of time. You're required to learn every inch of the track in order to master it, but the sense of achievement you receive when you do is unmatched.



The Sentinel

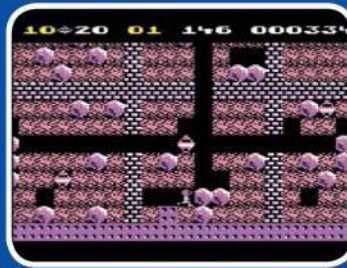
■ Year: 1986

■ Publisher: Firebird

24 Although best known for his racing games, Geoff Crammond wasn't afraid to step out of his comfort zone in order to deliver genuinely engaging experiences.

The Sentinel is arguably one of his most surreal and imaginative games, offering a cerebral challenge that few other titles on the C64 can match. Indeed, from the moment you witness Bob Stevenson's iconic loading screen, you know you're about to play something special.

Using the absorbing skills of your Synthoid, you must reach the highest point of each of the 10,000 levels and absorb the titular Sentinel without it spotting you. Interestingly, the slow drawing process of the C64 version – compared to its 16-bit counterparts – actually added to the game, creating an unbearable tension that, in turn, made it utterly unique. It was simply masterful, and highly challenging.



Boulder Dash

■ Year: 1984

■ Publisher: First Star Software

23 First released on Atari's 8-bit range of computers, *Boulder Dash* would go on to have massive

success across a staggering range of home computers and consoles. The C64 version was no different, and it remains one of the best puzzle games on the system, thanks to the super-cute hero Rockford – who became so popular that he infiltrated the pages of *Zzap!64* – as well as the deviously designed mazes that developer Peter Liepa created.

While it shared many similarities with Taito's obscure arcade game, *The Pit*, Liepa's *Boulder Dash* nevertheless stood proudly on its own two feet. It enhanced Taito's formulae by introducing all manner of new gameplay mechanics: the huge, multi-scrolling stages filled with precious diamonds for Rockford to collect, and deadly hazards for him to avoid. It's a timeless classic.

“Super-cute hero Rockford became so popular that he infiltrated the pages of *Zzap!64* magazine”

Barbarian: The Ultimate Warrior

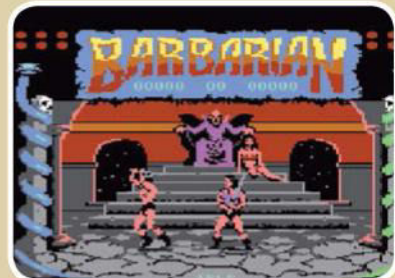
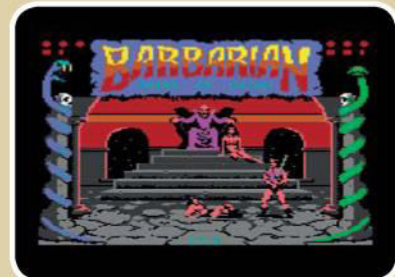
■ Year: 1987

■ Publisher: Palace Software

22 Even without that infamous cover, starring a scantily-clad page three model, *Barbarian: The Ultimate Warrior* was always going to be a rip-roaring success.

Heavily inspired by Frank Frazetta's stunning fantasy art and *Conan The Barbarian*, Palace Software dreamt up a beautifully brutal fighter that, in addition to still playing brilliantly, also managed to offer a sense of danger that, even now, can't be beaten.

We are of course talking about the infamous decapitation move that would immediately end a battle should you get the timing right. While tough to pull off against later computer, or human, opponents, the sense of satisfaction it offered remains unmatched. Steeped in atmosphere and with a rich sense of black humour – the goblin booting a head off screen never fails to raise a smile – *Barbarian* remains an excellent fighter and one of the best 8-bit brawlers on any system.



COMMODORE 64 GAMES

OF ALL TIME



California Games

■ Year: 1987

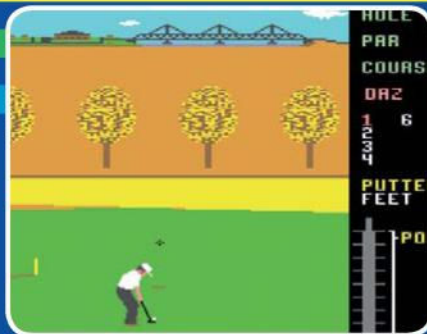
■ Publisher: Epyx

21

Epyx released a number of classic sports games for the C64, but this sterling effort from 1987 is the one you all appear to love the most.

Although it didn't offer as many events as its predecessor, *World Games*, *California Games* nevertheless managed to impress gamers thanks to its excellent animation, super presentation and the sheer variety found in the six included events: which ranged from half-pipe and roller skating to surfing, footbag and frisbee throwing.

As with past games in the series, accessibility and easy to follow instructions were the key to *California Games*' success, with each event being easy to learn, but difficult to master. Learn it you would, though, if only so you could completely hammer (up to seven) friends' attempts on each event. As bright and breezy as the state it was based on.



Leaderboard

■ Year: 1986

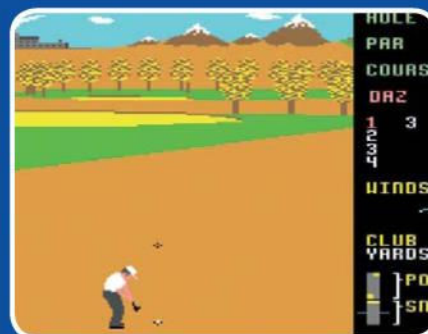
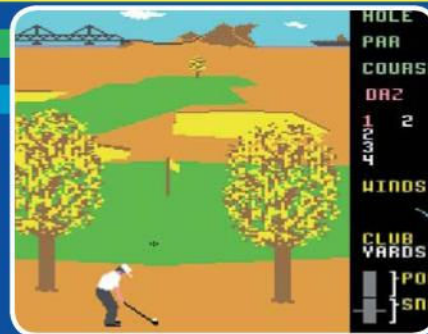
■ Publisher: Access Software

20

With many in the gaming world now obsessed with the yearly antics of Tiger Woods and the PGA, it's easy to forget that it all started with Access Software's sublime *Leaderboard*.

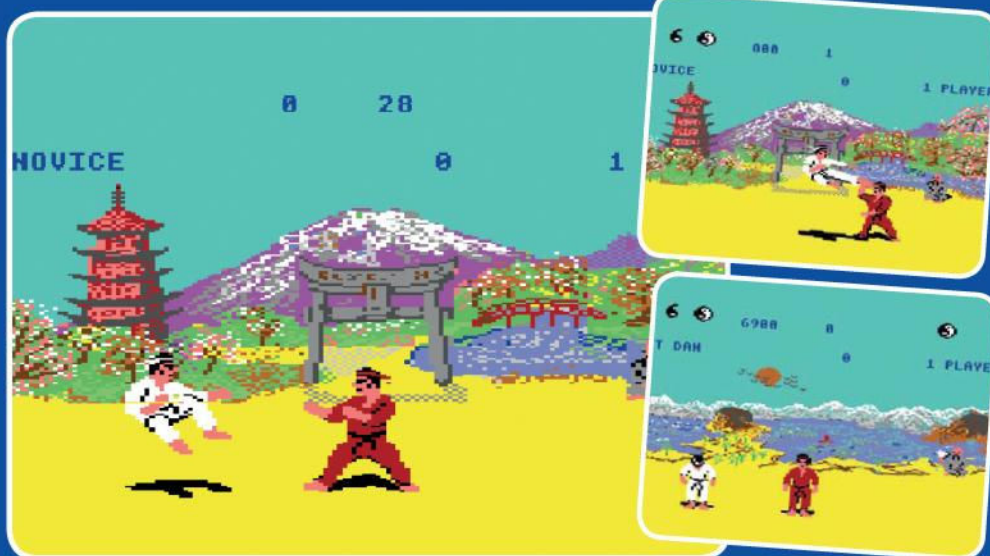
Now, admittedly it wasn't the first ever golf game to appear on a home micro, but it's hard to remember a version that was this comprehensive and accessible.

Leaderboard had everything you'd expect from a cutting-edge golf game. There were four exceptionally detailed courses to choose from, three modes: Novice, Amateur and Professional, and 14 distinct types of clubs, making it an amazingly comprehensive package. By far the best aspect of *Leaderboard*, though, was its excellent control mechanics, which gave you



a previously unseen amount of control when striking the ball.

It's long been surpassed by other golf games, with the developers going on to create the excellent *World Class Leaderboard*, but the original still remains the perfect example of a title that transcends its typical audience to appeal to an even larger group of people.



The Way Of The Exploding Fist

■ Year: 1985

■ Publisher: Melbourne House

19

From the moment you first laid eyes on *Fist*, it was obvious where its inspiration had come from. It was clear to reviewers as

well, many of who proclaimed it to be the best version of *Karate Champ* they'd ever played, despite the fact that it was a standalone effort.

Yes, there were obviously similarities between both *Fist* and *Karate Champ*, but we'd argue that Beam Software's effort was the better game. For starters, it looked fantastic, with super-slick animation that gave the on-screen combatants plenty of life. While it was unable to match the impressive number of moves found in *Karate Champ*, it still featured a decent repertoire, all of which you would have to master if you wanted to reach the later stages and achieve the revered tenth Dan rank.

The Way Of The Exploding Fist was the first home computer fighting game to genuinely feel as slick as its arcade counterparts, and remains a fun, tactical little fighter.



Myth: History In The Making

■ Year: 1989

■ Publisher: System 3

18

System 3 could seemingly do no wrong on the C64, with its 12 reviewed games in *Zzap64*!

receiving an average score of 90 per cent. Of course, when you consider games like *Myth*, those high scores begin to make sense.

Myth: History In The Making was a truly epic adventure that eschewed the distinct isometric approach of System 3's games for a more traditional side-on scroller that saw its hero battling all manner of mythological creatures as he travelled through time.

Initially armed with just his fist and feet, the unnamed hero was able to gain access to a variety of different weapons as his adventure progressed. Weapons were needed as well, as *Myth* could be tough in places, requiring deft reflexes to survive. You'd battle on, though, as Peter Baron and Bob Stevenson had created a truly stunning game, with huge multi-load levels that perfectly captured the mythology that it was inspired by.



Delta

■ Year: 1987

■ Publisher: Thalamus Ltd

17

When it came to shoot-'em-ups the C64 was untouchable. Thanks to its super fast scrolling, it was able to recreate an arcade-like experience that its 8-bit peers often struggled to match, and as a result, it had many great exclusives.

One such example was Thalamus's *Delta*, an impossibly slick horizontal-scrolling shooter that boasted highly stylised graphics, challenging attack patterns and ridiculously huge bosses. Fuelled by a suitably manic score from Rob Hubbard (there was even a sound mixer for creating your own tune while the game loaded) *Delta* featured a fun power-up system where you collected credits to boost various aspects of your ship, a nice take on the mechanics that were popular at the time.

It suffers now from relying a little too much on memorising attack patterns, and ensuring you have the right weapons for the right areas, but this is a fault that can also be levelled at Konami's *Gradius* (which *Delta* is very similar to).



“Thanks to its super fast scrolling, the C64 could recreate an arcade-like experience”



Maniac Mansion

■ Year: 1987

■ Publisher: LucasFilm Games

16

If you read our exhaustive 'Making Of' in issue 94 of *Retro Gamer*, you'll know just why LucasFilm's superb game made this list. If you didn't, then allow us to illuminate you. Created using the now legendary SCUMM engine, *Maniac Mansion* saw three kids exploring the titular house in search of a missing cheerleader called Sandy – discovering a bunch of wacky protagonists and devious puzzles on the way.

Creators Ron Gilbert and Gary Winnick were given free rein over *Mansion*'s creation, and it can be seen in every nook and cranny of the huge house you have to explore. Characters are memorable and spout genuinely amusing zingers, the puzzles are extremely well thought out, while the intelligent cursor makes it incredibly easy to manipulate your surroundings and interact with the objects and characters. A genuinely entertaining adventure that needs revisiting.





Last Ninja 2

■ **Year:** 1988

■ **Publisher:** System 3

15

There was more to *The Last Ninja's* hit sequel than just a change of scenery and location,

much more. For starters, it was a massive graphical improvement over the already impressive original, with detailed locations from John Twiddy that perfectly captured the atmosphere of New York. Technically impressive, skyscrapers soared ever upwards, levels were packed with detail and the Last Ninja and his counterparts featured far better animation than their critically acclaimed predecessor. Add in an extremely atmospheric soundtrack from Matt Gray and System 3's sequel was an aesthetic delight.

But there was more to *Last Ninja 2* than just pretty visuals; its gameplay had improved significantly to its predecessor as well. The vast majority of *Last Ninja 2's* gameplay still revolved around you seeking out specific items that would give you access to the next beautifully detailed area, but the puzzles were far cleverer than they were in *The Last Ninja*. Combat and jumping were also greatly improved as well, not requiring the pixel-perfect timing that plagued the original game. It still suffers from the clunky controls of the original, and many preferred the oriental setting of part one, but System 3's sequel remains a shining example of subtly improving on an already great concept.



Buggy Boy

■ **Year:** 1987

■ **Publisher:** Elite

14

Considering how popular arcade conversions were on the 8-bit systems, only two conversions have actually made your list. The first is Elite's port of Tatsumi's *Buggy Boy*. The second... Well you'll find out in a couple of pages.

What's interesting about *Buggy Boy* is that while it struggles to capture the bright and breezy cartoon visuals of the original arcade game, it nails the actual gameplay, delivering a conversion that *feels* like Tatsumi's popular racer, even if it isn't identical. Perhaps realising that the C64 was never going to accurately recreate the thrills and spills of Tatsumi's racer, Elite instead tried to make the best possible racer that it could – the end results were impressive to say the least.

Dave Thomas' slick coding allowed for some brilliantly precise handling that made controlling your buggy a lot of fun. The scrolling was extremely smooth as well, and it ran at a great speed, delivering an excellent off-road racing experience that few other games could match. It may have only boasted five courses, but the finely honed gameplay kept you going back for more.

“Trenz delivered a stunning masterpiece that effortlessly improved on his original game and made the jaws of non-C64 owners drop to the floor”

Turrican II: The Final Fight

■ **Year:** 1991

■ **Publisher:** Rainbow Arts

13

Turrican was an amazing C64 game that made developer Manfred Trenz a household name. A sequel

was inevitable as night following day, but how do you improve on such a killer formulae? If you're Manfred Trenz, you make everything bigger, bolder and better than before and included another storming score from Chris Hülsbeck. Oh, and you add an excellent shoot-'em-up level into the mix as well.



Turrican II is trashy, excessive, over-the-top, but most of all is fun. After honing his coding skills on the likes of *Denaris*, *Katakis* and the original *Turrican*, Trenz delivered a stunning masterpiece that effortlessly improved on his original game and made the jaws of non-C64 owners drop to the floor. Filled with the sort of kinetic action that was readily

available in the arcade games that Manfred so loved, and featuring some truly mind-blowing enemies (the final boss towers three screens high) *Turrican II: The Final Fight* was a technically accomplished videogame that had great gameplay to back up its stupendous visuals. A perfect sequel that improves on the original in every possible way.



Rear View



Elite

■ Year: 1985

■ Publisher: Firebird

12

We were somewhat surprised to see *Elite* just outside the top ten, as the C64 version is widely regarded as one of the best iterations of

the game. Surprise aside, it's still easy to see why *Elite* charted so highly, because it remains a phenomenal achievement, squeezing an amazing universe of possibilities into just 32k.

The C64 version arrived some eight months after the original BBC version, but made up for its tardiness with additional 'special missions', the inclusion of Trumbles (a homage to *Star Trek's* Tribbles), and a rendition of The Blue Danube Waltz, which plays whenever you dock.

Front View



SHORT RANGE CHART



Bugs had also been eradicated, giving C64 owners a more solid version that was only really let down by its slower running speed.

Fortunately, *Elite's* focus on exploration meant that the slower pace wasn't an issue and it went on to be spoken of in the same revered tones as its BBC predecessor. A true classic that paved the way for future flight simulators and open-world games.



The Last Ninja

■ Year: 1987

■ Publisher: System 3

11

We're guessing that nostalgia, rather than common sense, is the main reason *The Last Ninja* sits higher than its superior sequel. Having said that, it's still an expertly crafted adventure and it's a testament to developer John Twiddy that no other game featured in your list along with its sequel.

The multi-load adventure was set across six distinct areas and saw the titular ninja, Armakuni, trying to defeat the evil shogun, Kunitoki. As with its sequel, *The Last Ninja* featured a healthy mix of exploration and combat, but was let down by some truly obscure puzzles and tricky jumping sections that still have us wailing with frustration whenever we attempt them.

And yet John's game still does a lot right, thanks to its incredibly atmospheric levels, gorgeous design and an incredibly slick engine, which in many ways feels like the sort of 3D world that Ultimate created for the humble Spectrum. Even with its many niggles, there's no denying the appeal of System 3's game and it's little surprise that it remains to be held in such high esteem. What a pity that we're never likely to see Armakuni go on any future adventures.

Kik Start II

■ Year: 1987

■ Publisher: Mastertronic

10

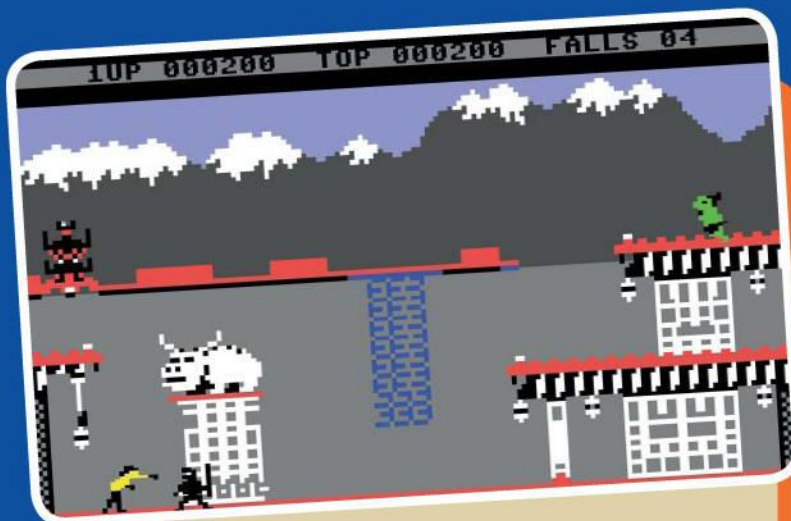
Kik Start was a huge success for Mastertronic, proving that a £1.99 game was just as good (and sometimes better) as a full-priced release.

Shaun Southern's sequel blew the already excellent original out of the water, delivering far better visuals, more courses, and best of all, an utterly superb level editor.

Gameplay-wise *Kik Start's* sequel is very similar to the original, with you (and another player in the excellent verses mode) racing across five chosen courses as quickly as possible. This time, though, the controls had been greatly refined, allowing for far better precision, which made it a lot easier to judge the speed to tackle certain hazards at. Yes, it can be annoyingly fiddly, but the sense of satisfaction you receive on a flawless run is immense.

And let's not forget *Kik Start II's* sprawling level editor. Sure, it takes a little while to get to grips with it, but once mastered you increase *Kik Start II's* appeal tenfold. 24 courses was already a massive improvement on the eight found in *Kik Start*, but Shaun's comprehensive level editor meant it would last as long as your imagination did.





Bruce Lee

■ Year: 1984

■ Publisher: US Gold

9

A Bruce Lee game about collecting lanterns sounds like a recipe for disaster, but the reality couldn't be further from the truth.

Bruce Lee, like *Boulder Dash*, started off life on the Atari 8-bits, before moving over to other systems. It's an interesting hodgepodge of genres, successfully combining – admittedly limited – fighting moves with fluid, fast-paced platforming. It works well, with Bruce having to rush around each stage collecting lanterns in order to reach the next area. Spanners are thrown in the works with the inclusion of a lithe ninja, and the Green Yamo, who continually chases Bruce around the beautiful levels.

One of the best aspects of *Bruce Lee*, which still holds true to this day, is the way you can approach each stage. Do you simply pummel your way to victory or rely on simple speed? Either way, the end result is a masterful hybrid that's still resounding fun to play.



“It was never going to win awards for its minimalist visuals, but it delivered an authentic world”



Thrust

■ Year: 1986

■ Publisher: Firebird

8

Like many hit 8-bit games, Firebird's *Thrust* owes its creation to a classic arcade game – in

this case, *Gravitar*. In many ways, though, Jeremy Smith's offering is a far better videogame, subtly taking elements from the arcade original template, but stamping its own ideas all over it.

Thrust was never going to win awards for its minimalist visuals, with many gamers and reviewers calling it dated on its release, but Jeremy's focus wasn't on cutting-edge graphics, it was on delivering an authentic world for your spacecraft to explore – a task he achieved easily.

Thrust required you to do little more than explore the alien terrain and recover a set-number of fuel pods. The snag here, however, was that you had to get used to both *Thrust*'s realistic physics and deviously placed enemy ships. Part puzzle, part shooter, *Thrust* required you to be quick on your trigger finger while mastering your ship's delicate control system. It's a beautiful marriage of mechanics that still stands the test of time.



Bubble Bobble

■ Year: 1987

■ Publisher: Firebird

7

24 years after its original release and we still can't believe that Ste Ruddy was able to cram Taito's

hit coin-op into the C64. Even after he revealed all in issue 95, it remains a phenomenal achievement, even if it isn't quite as arcade perfect as many made it out to be at the time.

In 1987, though, *Bubble Bobble* on the C64 felt like a revelation. Ste Ruddy's conversion was simply astonishing, with great sprite work, authentic level design and plenty of secrets that had been tucked away in the original arcade game. He even managed to get one of the secret levels in, bless him – impressive work when you consider that Ste had no inside help at all from *Bubble Bobble*'s original creators, and had to base all his experience on his own play-throughs. Ste's stupendously good work is further complemented by a wonderfully authentic version of the unmistakable theme tune from Peter Clarke, which adds further to an already excellent conversion. *Bubble Bobble*'s sequel also received a fine conversion (from Graftgold), but it still couldn't top Ste's effort with the original game.

In short, we'd argue that *Bubble Bobble* is the best arcade conversion on Commodore's machine, and judging by the sheer number of you who voted for it, it would appear that you're in complete agreement.





Armalyte

■ **Year:** 1988

■ **Publisher:** Thalamus Ltd

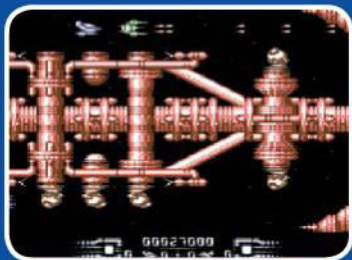
6

Armalyte is further proof that the C64 was the computer to own if you loved shoot-'em-ups. From its metallic-tinted visuals to its awesome boss designs, everything about *Armalyte* screams epic.

Coded by Dan Philips and John Kemp, with graphic duties by Robin Levy and a punchy soundtrack from Martin Walker, *Armalyte* is a gorgeous game that calls to mind classic arcade hits such as *Nemesis* and *Salamander*.

More importantly, however, *Armalyte's* game design is every bit as meticulously designed as its scintillating visuals. Enemies are cleverly placed, offering a stiff, but not overtly unfair, challenge, while the actual level design is superb, offering plenty of areas where pinpoint movement is just as important as shooting accuracy. Power-ups are also of a high standard, and while they're not original, they all pack a meaty punch and are extremely satisfying to use.

Armalyte may not be very innovative, but it's an expertly crafted shoot-'em-up with a timeless quality to it. The fact we still regularly play it is all the proof of its excellence that you need.



Impossible Mission

■ **Year:** 1984

■ **Publisher:** Epyx

5

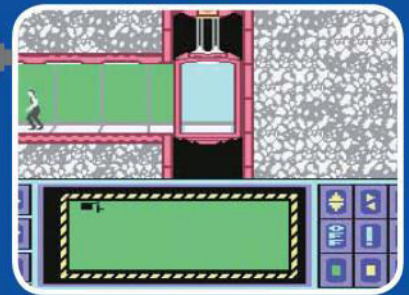
Even today, Elvin Atombender's infamous taunt "Another visitor.

Stay a while... Staaaay

forever!" sends a tingle of excitement down our spines. Created by Dennis Caswell in 1984, *Impossible Mission* was an atmospheric romp that saw Agent 4125 leaping and somersaulting his way through Elvin's labyrinth-like complex in search of missing password pieces that, when assembled, would allow the agent access to the main control room.

It's not an easy task, though, as the diabolical genius has scattered the pieces all over his lair. Worse still, vicious robots guard many of the lifts and platforms, and Agent 4125 must either athletically leap over them or deactivate them via the many computers found on each screen.

Add in a strict six-hour time limit (with every death knocking ten minutes off the clock) and *Impossible Mission* became a frantic race against time. Numerous ports and sequels followed, but Agent 4125's original adventure remains his best.



Uridium

■ **Year:** 1986

■ **Publisher:** Hewson

4

To many C64 owners, Andrew Braybrook is a god. A coding god, of course, but a god nonetheless. While he

occasionally dabbled with other systems, his mastery of the C64's innards was legendary, and he delivered a number of super-slick games that felt just as polished as those you'd seen in arcades.

Uridium scored an astonishing 99 per cent for its graphics when it was reviewed in issue 11 of *Zzap!64*. It's a near-perfect score, but totally understandable when you witness what Andrew was making the C64 pump out. Impossibly fast, silky smooth scrolling combined with gloriously detailed Dreadnoughts and stylish-looking ship sprites to create an awesome game that still impresses today.

It was *Uridium's* meticulously designed gameplay that most remember, though, with your Manta-class Space Fighter effortlessly gliding over the huge

Dreadnoughts and taking down the hordes of opponents that constantly assaulted you. It wasn't just the Dreadnought's fleet that caused issues, though, as the battleship itself also had to be contended with. Each of the 15 huge ships had various outcroppings on them that couldn't be destroyed, meaning you had to fly around them to avoid losing a life. It's a great mechanic that really heightened the feeling of flying over a huge ship and made for some incredibly tense bombing runs. Fortunately, your fighter was more than up to the difficult task thanks to being highly manoeuvrable and a complete joy to control. Take down the Dreadnought's many gun emplacements, land your ship – no easy task in itself – and you'd then get to repeat the process against an even tougher adversary.

Even now, some 25 years after its original release, *Uridium* remains a breathtaking shooter to play, with a timeless quality that few other C64 shoot-'em-ups can boast. It's proof to Andrew's skill as both a coder and a game designer that he's the only developer to have two games in your top five.



COMMODORE 64 GAMES OF ALL TIME



International Karate +

■ **Year:** 1987

■ **Publisher:** System 3

3 It's easy to forget the understated genius of Archer Maclean's sequel to the acclaimed *International Karate*. For the uninitiated, all he did was add a third fighter to an already great game – and that's pretty much it. The reality, of course, is that there was far more to Archer's sequel than just that additional fighter, but it's amazing how such a seemingly straightforward idea could help lift it above so many other examples of the genre. In fact, we'll go as far as to say that *IK+* is the best 8-bit fighter, full stop.

By far the most astonishing aspect of *IK+*'s third pugilist is that we've never seen the mechanic emulated elsewhere with the same dazzling effect. Sure, there are games like *Powerstone 2* that take the idea to its natural three-dimensional conclusion, but from a 2D standpoint? We just can't think of a decent example at all.

One of our favourite aspects of *IK+* is just how expressive and animated the new fighters were. Archer's sequel added stomach kicks, a dangerous head butt, and several other moves to the standard *International* roster, turning combatants into truly dangerous opponents. Archer also included an exceedingly useful backflip (inspired by watching *Grease*) that allowed fighters to get out of trouble if things became too dangerous. The frantic on-screen fisticuffs were backed up by another magnificent score by Rob Hubbard (who had also worked on the original), while even the referee had more to do in Archer's blistering sequel.

Originally assigned to the background, he now pops up during matches to report on the current scores and give encouragement to players. It's a mechanic that works surprisingly well, spurring on the player to greatness, even when he's trailing by a full point. Last, but by no means least, was a new bonus round that saw your player deflecting an increasing number of bouncing balls. As the round continued the speed and trajectory of the balls increased, requiring amazing reflexes to net the best scores.

Despite the sheer amount of action that Archer had packed into his sequel, he still wasn't satisfied, and he began tinkering with *IK+*'s once static backdrop. Fish randomly leapt from the water, spiders would dangle down from overhead beams, gulls would lazily fly across the sky; it all helped *IK+* to not only feel realistic, but also alive.



Wizball

■ **Year:** 1987

■ **Publisher:** Ocean Software Ltd

2 *Wizball* is one of our favourite ever C64 games, so it's gratifying to see it chart so highly. Part

platformer, part shoot-'em-up (with a healthy leaning towards the latter genre), *Wizball* remains a fantastic game that never fails to impress.

After the evil wizard Zark leeches *Wiz*world of its vibrant colour, *Wiz* and his pet cat Nifta attempt to restore the now drab world to its former colourful glory. This involves *Wiz* jumping in his titular *Wizball* and moving around the drab, monochromatic world while avoiding hazards and taking down waves of enemies. One of the most delightful aspects of *Wizball* was just how well its mechanics worked. Initially, you can only bounce around, which more often than not can get you into all sorts of trouble. As you shoot down waves of enemies they will leave pearls behind, which in turn light up seven distinctive power-ups.

A quick waggle of your joystick will select said power-up which can range from more powerful firepower, to thrust, and anti-grav: which gives you far better control over your spherical craft. Last, but by no means least, is the Catalyte, which enables you to switch control to *Wiz*'s cat Nifta, so you can mop up droplets of colour as they fall to the floor.

It's a delightful system, fully controlled by the joystick, which easily captures the arcade experiences that were so popular at the time. It's also beautifully balanced, requiring you to switch between shooting and collecting in order to get through the eight large game worlds. Highly original – few other games have even tried recreating its magic formulae – it's a game that would work brilliantly on today's popular handhelds. For some, *Wizball* is a hardcore shooter, while others prefer its puzzle and co-op elements. Regardless of the type of game you think *Wizball* is, there's no denying that there's nothing else on Commodore's machine which is quite like it.





Paradroid

■ Year: 1985

■ Publisher: Hewson

1

Andrew Braybrook's *Paradroid* is a masterpiece, there's no other way to describe its sheer brilliance. Like *Wizball*, *The Sentinel* and many other games in this

list, it's based upon the simplest of ideas, but Braybrook managed to make everything about it feel so much more epic. As with *Wizball*, at first *Paradroid* appears to be nothing more than another simple-looking shoot-'em-up. Look deeper, though, and you'll discover that it's so much more than that, offering a healthy blend of different genres that not only manage to keep the gameplay fresh and exciting, but most importantly, keep you going back for more.

This is partly down to Braybrook's exceptional skill as a coder. As with *Uridium*, *Paradroid*'s coding is faultless, delivering impossibly slick scrolling and brightly designed

play-fields that allow you to become totally immersed in the on-screen action, and prove to your non-C64-owning friends that they had backed the wrong horse. There are no niggles in *Paradroid*, no annoying little bugs to distract you from its absorbing gameplay; just a coherent, well put together world that draws you in to its murky depths and refuses to let you go. Andrew was a fervent arcade player back in the day – he still owns the original coin-op of *Rainbow Islands* – so it's no surprise to learn that both *Uridium* and *Paradroid* have the sort of slick presentation that was abundant in the popular arcade games of the time. In short, *Paradroid* is the arcade game you never got to play. Play it you will, though, because from the moment *Paradroid* sinks its claws into you, it refuses to let go.

Paradroid is set on a huge multi-tiered spaceship that is overrun with hostile droids. The player takes control of a unique

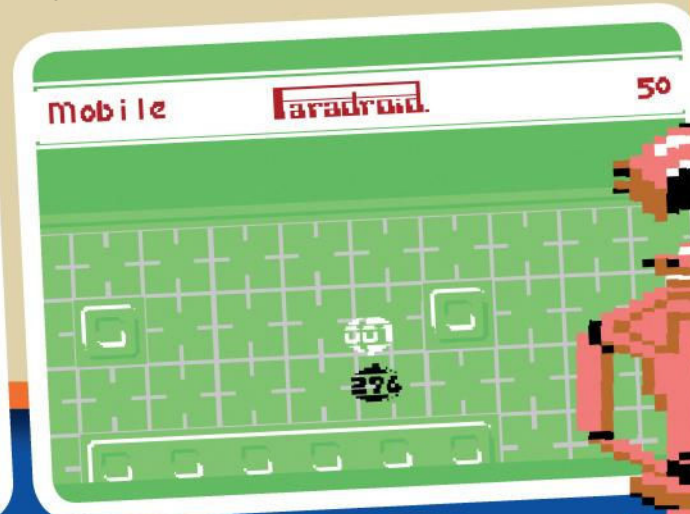
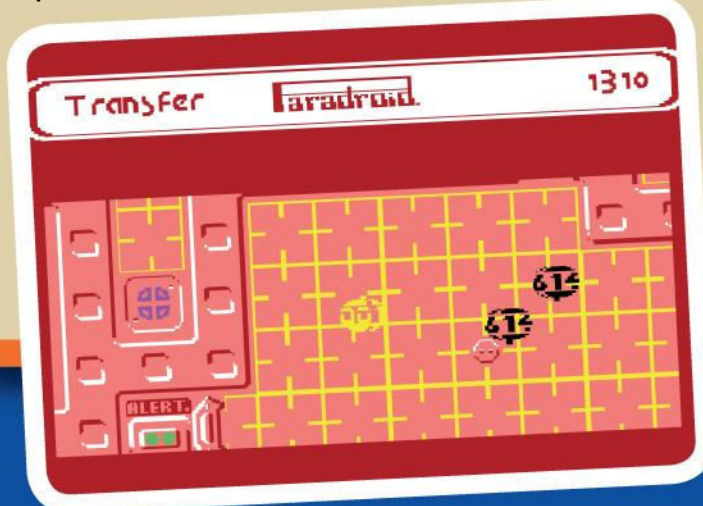
droid called the Influence Device, and has the task of destroying all the other droids found on the spaceship's 20 decks. All the other droids are far more powerful than your little Influence Device, as noted by the up to three digit numbers found on their sides. In comparison, the Influence Device has a rating of just 001, meaning it can easily be taken out by virtually every other droid.

Fortunately, while the Influence Device isn't too hot in a gunfight, it does have the handy ability to take over another droid by 'linking' to them. Once 'linked' to a droid – of which there are 23 distinctive types – the Influence Device earns all the skills and firepower of the droid in question, making its task far easier to complete. It's worth noting, though, that you can only control a droid for a limited amount of time, so *Paradroid* requires you to play aggressively, constantly hunting down weaker droids with your weaponry of using your 'link' powers to control

stronger opponents. Even the linking isn't easy, though, as you need to complete a surprisingly complex mini-game first, which gets harder and harder as the droids get stronger and stronger. It's also worth noting that linking to stronger droids isn't without its risks. Fail to successfully 'link' and your host droid will be immediately destroyed. Fine if you're already in another droid, but not so good if you're the Influence Device, as it immediately results in the game's end. As a result, *Paradroid* features a great risk and reward system where you have to gauge the best way to dispose of each droid that you encounter.

Highly influential, its possessing mechanic has featured in everything from *Space Station Silicon Valley* to *Messiah* and *Mind Jack*. *Paradroid*, for us, is the zenith of C64 gaming, and is a title that every gamer, C64 owner or otherwise, needs to play.

Special thanks to Mat Allen for additional screenshots



THE CLASSIC GAME



Eek! A super dreadnought has just appeared over each of the 15 planets in your galactic sector, and it's safe to say that they haven't just popped round to borrow a cup of sugar. In fact, they're draining planet cores to drive their power units – and they didn't even have the courtesy to ask nicely.

Presumably due to the typical government cutbacks seen in every other shoot-'em-up ever, all that's available to take on these monstrous foes is a squadron of single-seat fighters. Each dreadnought is attacked in turn, your Manta engaging surface defences and enemy fighters before landing and activating a self-destruct sequence via a mini-game that looks suspiciously similar to something you'd find on a fruit machine. This can only be, as long-time C64 fans will know, *Uridium*.



THE MANTA

Your ship, the Manta, is the key to the game. Although it offers plenty of firepower via its dual guns, its manoeuvrability is more important. Learn to control your craft's speed and flips to avoid hostile foes and ensure that you don't smash into dreadnought shields and comms towers.



YOUR TRANSPORTER

The transporter is the first thing you'll see in each level of *Uridium*. It transports the Manta to the next dreadnought, and you're treated to a rather lovely animation as your ship exits to do battle. There's no practical reason for this item's existence, but it adds polish to the game.



HOMING MINES

Each of *Uridium*'s dreadnoughts has flashing ports on its surface. Be wary of these, because they house lethal mines that home in on your craft. Each mine only has limited fuel, and so if you can avoid it for a few seconds, you'll be fine – although later levels often launch them in pairs.



ALIEN SCUMBAGS

Enemy craft in *Uridium* increase in ferocity as you move through the game, but similar tactics work on even the highest levels. Ships in the game all have forward-facing guns, so stealthily sneak past and shoot them from behind. Waves are pre-set, so learn their movements and firepower.

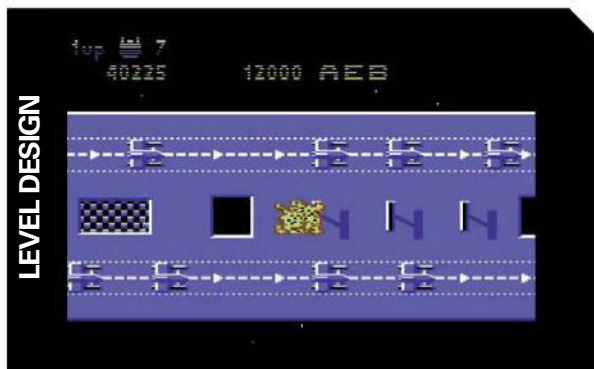
WHY IS IT A CLASSIC?



Speed, focus and a strong foundation

Uridium arrived in 1986, before *R-Type*-style shooters with weapon upgrades invaded the C64, and so it might seem simple. However, Andrew Braybrook's *Paradroid* follow-up has plenty to engage the arcade-oriented gamer. First, it's fast: at top speed, dreadnoughts zoom past and you need lightning-fast reactions to survive. Secondly, the game is focused: it has its aims and achieves them with style and polish. Finally, the foundation is strong, frantic and fun, so much so that *Uridium* was followed by *Uridium+* on the C64 and an impressive, expanded but still action-packed Amiga sequel, *Uridium 2*.

LEVEL DESIGN



Death from below

Much like Andrew Braybrook's previous games, *Gribbly's Day Out* and *Paradroid*, *Uridium* isn't an out-and-out shooter – you can't just wade in, all guns blazing, and hope to make it to the end of each level. Instead, you must map out each dreadnought in your mind, memorising danger areas, escape routes, clusters of Manta-destroying comms towers and shields, and the location of the primary landing strip that enables you to infiltrate the dreadnought's onboard system and blow it to kingdom come. Later levels are especially devious, with maze-like surfaces that require particularly skilful flying.

PLAYER REWARDS



Die (again), alien scum!

Although rather lacking in red pixels, *Uridium*'s one of the more bloodthirsty games on the C64. True, you're not faced with the dying eyes of alien foes, but there is a rather vicious element to the game once a level's complete. Post-bonus round, you're informed that the destruct sequence has been primed, and you're then returned to the game. As the dreadnought vaporises before your very eyes, there's just time for one more fly-past, and you can strafe any remaining surface targets for bonus points, presumably yelling 'Take that, alien vermin!' as you do so.

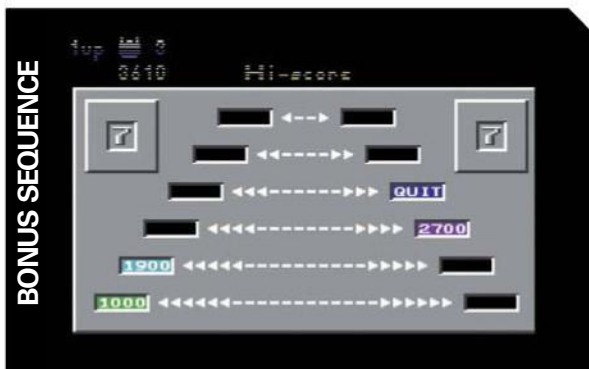
FLUID CONTROLS



A manoeuvrable Manta

Around the time of *Uridium*'s release, most C64 shoot-'em-ups had craft little different from the *Space Invaders* laser cannon – you could move left, right and fire, and if you were lucky, you might also be able to move up and down a bit. By comparison, *Uridium*'s beautifully animated Manta is hugely manoeuvrable, with a number of cruising speeds, and the ability to flip over to chase hostile aliens and fly at an angle, in order to squeeze through gaps between shields and communications devices that litter the dreadnought surfaces. Only by mastering the Manta will you make any progress in *Uridium*.

BONUS SEQUENCE



Don't be a quitter

We suspect that Andrew Braybrook perhaps quaffed a little too much coffee while putting together *Uridium*, our evidence being its bonus section. Whereas Jeff Minter's *Batalyx* – another 1986 C64 shooter with a bonus round – plunks you in 'psychedelic noodling land' if you fancy a break, *Uridium*'s end-of-wave respite comes in the form of a bonus game. Instead of enabling you to relax, it keeps the tension high, taking the form of a simple fruit machine-style timing test: at each 'level' you hit fire to hopefully select a chunky bonus rather than quit and return to the game proper.

STRANGEST CONVERSION



The Last Starfighteridrium

Although very much designed for the C64, *Uridium* nonetheless made its way to a handful of other platforms. The ZX Spectrum port was particularly good, and there were workmanlike efforts for the BBC Micro and Amstrad CPC. By far the strangest conversion, though, was to the NES. Arriving in 1990, Mindscape's *The Last Starfighter* – released six years after the middling movie, making it a strange tie-in in itself – was *Uridium* in all but name. Some elements were altered – the main ship's different, and the transporter's absent – but otherwise this is a surprisingly faithful, if curious, NES remake of a C64 original.

What the press said... ages ago

Zzap!64 (94%)

"*Uridium* is truly an impressive game, immaculate in both its execution and conception. The Manta is very responsive indeed and is a pleasure to control, skilful handling providing a similar joy to that of *Defender*. Overall an excellent game that should be on every 64 owner's software shelf."

C&VG (10/10)

"Andrew Braybrook's *Uridium* is simply the best 64 game we've seen since *Fist*. It's good-looking, sounds great, and the action comes thick and fast. If you're a 64 owner and you don't rush out and grab this game, there's no hope for you."

What we think

Uridium might seem a controversial choice for these pages, and it's fair to say that it today feels a little basic and at times unforgiving. But the gameplay mechanics are great, and the combination of fast-paced shooting/survival and considered, devious level design ensures *Uridium* a place among the C64's best blasters, regardless of its relatively minimal nature.

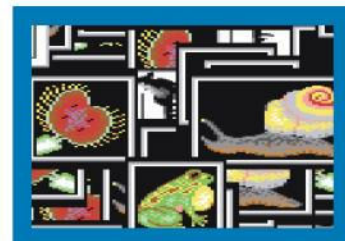


IN THE KNOW

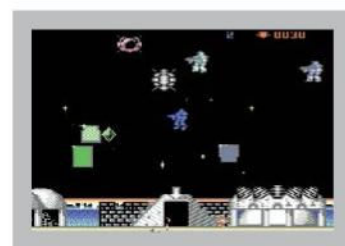
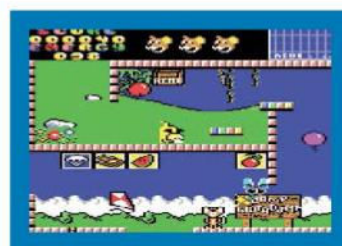
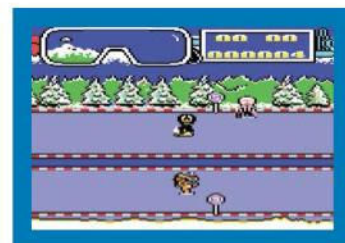
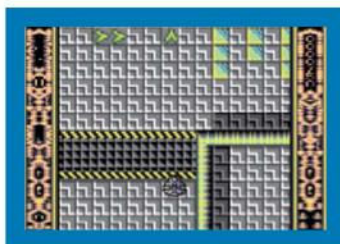
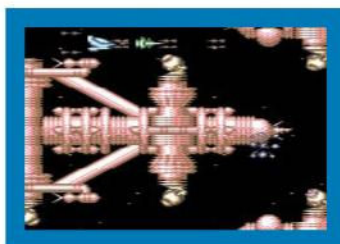
- PLATFORM: COMMODORE 64
- PUBLISHER: HEWSON CONSULTANTS
- DEVELOPER: ANDREW BRAYBROOK
- RELEASED: 1986
- GENRE: SHOOT-'EM-UP
- EXPECT TO PAY: £1



THALAMUS



AN IN-DEPTH LOOK AT ONE OF THE COMMODORE 64'S MOST POPULAR PUBLISHERS



BRAIN STRAIN

The Thalamus logo stood for quality, with the company specialising in tough shoot-'em-ups and platformers, particularly on the C64. The escalating costs of developing for new machines saw the firm close its doors after just seven short years. Andrew Fisher looks back at the diverse range of programmers and the aftermath of the company's bankruptcy...



Newsfield director Roger Kean remembers, "Visitors to the London computer game shows at Earls Court and Olympia in late 1985 to early 1986 often suggested that Zzap!, particularly, ought to publish games, so the pressure to do something about it came at first from the reviewers Julian Rignall and Gary Penn. In the end, it was me who finally said Newsfield could do it and found a software publishing house, and then went on to persuade the other directors. It was obvious to us that we would need to poach someone with development and marketing experience, and Andrew 'Flathead' Wright (a regular Ludlow visitor in his role as Activision's PR manager) seemed ideal and was interested."

Many in the industry had doubts about the label's independence from the magazines that would review its products. EMAP, Newsfield's main rival, was selling off its software label Beyond. Roger continues, "We rented premises in London. Admittedly, these were in the same building as the London editorial team for LM Magazine, but then those people had little to no interest in games or the people putting them together. Obviously, as a wholly owned subsidiary, the Newsfield board kept tight reins on the Thalamus operation, but only from a management point of view. As to the Zzap! editorial people, they enjoyed no more or less advance information than they were used to getting from other developers at the time. Indeed, Gary Penn famously rubbished one Thalamus game (*Delta*) in a review."

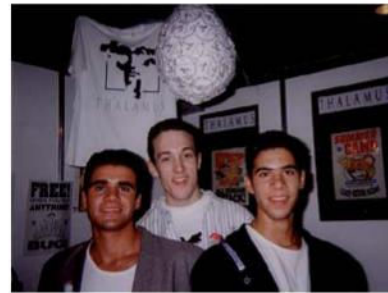
Ex-Zzap! editor Gordon Houghton continues the story. "The relationship between Newsfield and Thalamus was perfectly professional, as far as I remember. They certainly didn't feel like the same company; in fact, I didn't know they were until someone told me. On an editorial level they kept the two companies

quite separate. Newsfield never applied any pressure to give good marks to any game, let alone Thalamus ones. It was never even mentioned. They were quite happy as long as we could back up any rating we awarded with reasons for doing so." Gordon did come under pressure once, but more on that a little later.

Someone else was needed to work alongside Andrew Wright though. "The other Zzap! staff writer, Gary Liddon, was of course a coder, and spent a lot of his spare time slogging away on a C64," continues Roger. Gary had worked at Domark before joining Zzap! and was more than happy to tell us how he got the Thalamus gig. "I got my place at Zzap! through sheer force of will and lots of enthusiasm rather than on the basis of talent," he admits. "To be honest I fitted better in game development and Thalamus was a great step into that industry. Andy Wright was a good friend who was working at Activision as a PR guy, but was really unhappy and wanted to do something else. I had a lot of time for the high-ups at Newsfield having faith in a 19-year-old and a 20-year-old to set up and run a games publisher. It's crazy on the face of it but worked out well for everyone."

THE HELSINKI HEX HERO

The fledgling company attended the 1986 PCW Show as part of the Newsfield stand. "Julian got chatting to this tall, thin streak from Finland with the unlikely Greek-sounding name Stavros Fasoulas, who had the better part of a C64 game ready," recalls Roger. "Julian kept on raving about it and invited Stavros up to Ludlow after the computer fair ended. Penn and Liddon also admired the game, while arguing that it still fell short of being a winner. Stavros himself still wanted to add a deal more complexity, a process which took a few months while he



» Pieter Opdam (at the back) meets John and Steve Rowlands on the Thalamus stand, PCW Show 1989 (courtesy of Jason Kelk).

camped out in the flat Penn and Liddon shared." This flexibility on deadlines and the urge to polish a game would become a Thalamus hallmark. Gary remembers, "We offered loads of feedback to Stavros. To be honest, I think that may have been a bit of a pain in the arse for him. I later ended up a programmer and it's great getting external feedback on what you're working on; however, that feedback needs to come at the right time and place. I'm not sure how much Stavros was helped on *Delta* and *Sanxion* by a daily deluge of suggestions on what would be good in the game."

Stavros called it *Rainbow Warrior* after the bonus sections, but Gary suggested changing the name after the sinking of the Greenpeace ship. So the first Thalamus release became *Sanxion*, with Jon Twiddy's *Cyberload*, Mat Sneap's loading screen and Rob Hubbard's soundtrack. Eager for a follow-up, work started on *Delta*, another horizontally scrolling shoot-'em-up, with the backgrounds drawing inspiration from *Nemesis* and *Salamander*. Gary regards it as his favourite Thalamus game. "I can see it polarises opinion, and can completely understand why some people can't stand it. I really like the music and it hypnotically merged with the gameplay. For me Rob's contribution to that game almost equals Stavros's. We



» *The Hits*, a great compilation of early Thalamus games.



» *The Thalamus Star*, a response to US Gold's 'History in the Making' ads.

IN THE KNOW

Thalamus was formed in 1986 as the software label of Newsfield, famous for its computer magazines such as CRASH and Zzap!64. With several key Commodore 64 titles under its belt, it looked to expand to 16-bit machines and the Spectrum in the late 1980s. The liquidation of Newsfield in 1991 and the rising cost of development left Thalamus with low funds and many unreleased titles before it closed in 1993. The name was revived for Thalamus Publishing, which released a book of Oliver Frey's artwork in 2006.



THALAMUS

PUBLICITY

The logo was one memorable aspect of Thalamus. Roger says, "I thought Oliver's logo was brilliant, simple but with so much impact. It looked great on T-shirts." Oliver describes it in *The Fantasy Art Of Oliver Frey*. "I wanted something that indicated sensitivity and a determination to win, and an eye gazing into a distant, imagined future or past." The Thalamus Club offered merchandise like watches and free pencils during its short existence. Another collectable is the psychedelic 'Fuzzy' given away with *Creatures*. Former Newsfield writer Richard Eddy joined the company to handle PR.

The box artwork was also used for adverts, with distinctive white borders. The 'Thalamus Star' adverts resembled a tacky tabloid front page, with bizarre headlines ('Aliens stole my brain') and facts about forthcoming releases. The 'Gold Rush' promotions for *Hawkeye* and *Armalyte* each had special golden cassettes distributed, which could be returned to Thalamus for a prize.



» Displaying its Thalamus Europe logo, the disk box for *Nobby The Aardvark* (C64).

got on really well with Rob and felt he went the extra mile for us. I'd say some of his best work is in the Thalamus games we worked on."

The third game in the Stavros trilogy was *Quedex – The Quest for Ultimate*



» Nobby sails past the wreck of the Titanic in his one-aardvark submarine.

newly recruited producer Paul Cooper was on hand to work with potential candidates. Gary Liddon had left to join Electronic Arts, while Andrew Wright had gone back to Activision. Gary states, "The trigger was being refused a profit share

public that was distinctive and did them no harm. So I'm pretty proud to have been involved in that and I'd say that firm footing we left the company on seemed to work as a lightning rod for some great up and coming talent in the games industry.

"I CAN SEE IT [DELTA] POLARISES OPINION, AND CAN COMPLETELY UNDERSTAND WHY SOME PEOPLE CAN'T STAND IT" GARY LIDDON

Dexterity. Each of the ten levels was a maze, requiring different tactics for the shiny metal ball to reach the goal. Stavros had to call a temporary halt to his programming career, returning to Finland for his compulsory national service. After programming the Amiga game *Galactic*, he went on to form Terramarque (which merged with another Finnish label Bloodhouse to become Housemarque). Thalamus was in need of new blood, and

or ownership in the company. It just seemed fair that given we were creating a lot of value we should have some stake in it. That was pretty firmly rebuffed." Did Gary have any regrets about leaving the company? "I think when me and Andy left, the company had a great and very defined image along with a couple of great games that'd done very well. The games were 99% down to Stavros but I think we created a way of presenting them to the

I know quite a few of the people who made stuff for Thalamus after mine and Andrew's time, and they're really talented people still doing well today."

SECOND WAVE

Martin Walker had previously worked on several licensed products including *Back To The Future*, which was completed in rapid time to a very strict storyboard. His



» Thalamus made great loading screens and *Sanxion's* was no exception.



» Clyde's friend is sliced up by Mr Chainsaw in the excellent *Creatures*.



» Richard Eddy & Robin Candy (Newsfield employees at the time) model Thalamus T-shirts.



» Major Dan Damage's hobbies include origami, skiing and blowing up planets.

project for Thalamus was a cross between a puzzle game and a shoot-'em-up – *Hunter's Moon*. In addition to the excellent shooter, Martin contributed music and sound effects to various other Thalamus games before creating the superb *Citadel*



» Cute platformer *Nobby The Aardvark* was released on the C64 but the planned Amiga conversion never saw the light of day.



» *Armalyte* was one of the best shooters on the C64, even if it was similar to Irem's *R-Type*.

“A DESERVED GOLD MEDAL WENT TO ARMALYTE FROM CYBERDYNE SYSTEMS, A HORIZONTALLY SCROLLING SHOOTER THAT REALLY STRETCHED THE C64. THALAMUS FOUND ITSELF WITH ANOTHER HIT”

for Electric Dreams. After a few years concentrating on music, Martin left the industry for good.

The next Thalamus release was *Hawkeye*, a game that divided critics and players. The Boys Without Brains created a good-looking game with parallax scrolling, great music by Jeroen Tel and an amazing animated intro sequence (the face of a Xamoxian telling the story behind the game). Beneath the gloss however was a tough, repetitive platform shoot-'em-up. Gordon Houghton came under pressure to give the game a good mark and ultimately it was awarded a Gold Medal. C&VG (published by EMAP) gave it a terrible 3 out of 10, while Commodore User's verdict was a more respectable 8. “I think EMAP underrated it and we (more specifically, I) overrated it,” admits Gordon. “I was going to give it a Sizzler at the time, but felt pressured by one of the Thalamus people to up the rating. Not bribery – just heavy persuasion, to which I was unfortunately susceptible. It was my first month in the job and I probably wanted to please too many people too much of the time. It's not a mistake I made again, however; it had nothing to do with the Newsfield people, it was all down to me.”

Fortunately, a deserved Gold Medal went to *Armalyte* from Cyberdyne Systems, a horizontally scrolling shooter

that really stretched the C64. With an eerie soundtrack from Martin Walker and some extremely striking visuals, Thalamus found itself with yet another hit. “*Armalyte* was the best horizontal shooter on the C64, and still one of my favourite shooters today,” states Gordon. (For more on *Armalyte*, see issue 36's ‘Making of’ article.) The team of Dan Phillips, Robin Levy and John Kemp moved to System 3 and the planned sequel was never finished.

PLATFORMS & PITFALLS

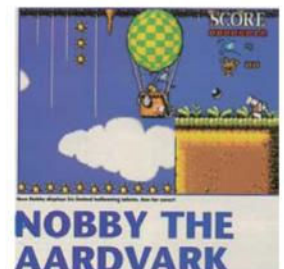
Keen to stretch its wings to other formats, Thalamus created *Mind-Roll*, an Amiga and PC conversion of *Quedex*, and followed those with a Spectrum conversion of its popular C64 shooter *Sanxion*. Another high-scoring debut game was the excellent *Retrograde* from Apex Computer Productions – John and Steve Rowlands. Thalamus took a gamble on Apex's short track record in the industry, but it was a gamble which paid off. The problem was the speed at which finished games were being released. Several key projects, like *The Search for Sharla*, were proving to be very slow in development – but Thalamus chose not to rush games out of the door. In 1990, Apex created *Creatures* – or ‘Clyde Radcliffe Exterminates All The Unfriendly Repulsive Earth-ridden Slime’ to use its full title. The game had a dark sense of humour; between scrolling levels filled with cute enemies, Clyde would have to rescue his fellow Fuzzies from devious ‘Acme’ torture devices. The sequel had six fiendish devices to stop, with more variety coming from three other sub-games. Helping out was Andy Roberts, Commodore Format's tips expert. After writing a letter full



» Platform shoot-'em-up *Hawkeye* received very mixed reviews.

UNRELEASED GAMES

Thalamus closed its doors with several titles left incomplete. Among the most eagerly anticipated was *The Search for Sharla*, a 3D strategy game in the style of *Lords of Midnight*. All that survives are screenshots and the novella. The licensed games *Q8 Team Ford Rally Simulation* and *Arsenal FC* also failed to reach the shelves, despite lots of publicity. Conversions figure highly on the AWOL list. The Spectrum versions of *Creatures*, *Armalyte* and *Bombuzal* (under licence from Image Works, the Mirrorsoft label) did not get finished, but a demo of *Armalyte* appeared on a Your Sinclair covertape. *Armalyte 2* for the C64 got as far as demo form, with a weapon shop and reused graphics. Amiga users missed out on *Beastmaster* (inspired by *Shadow Of The Beast*), *Nobby The Aardvark* and *Restrictor* (described by programmer Richard Underhill as “a cross between *Galaxy Force* and *OutRun/Afterburner*”).



FINEST HOUR

ARMALYTE (C64, 1988)
Regularly topping polls for the best shoot-'em-up on the Commodore 64, there can only be one winner here. Everything works so well, from the extra weapons to the soundtrack. Cyberdyne Systems may have been unhappy with the marketing ploy of labelling it ‘Delta 2’ but it surpasses the gameplay of the earlier Stavros Fasoulas title. Play it on the original machine though: the Amiga and ST conversion (*Armalyte: The Final Run*) is a pale imitation.





THALAMUS



» Maximus collected Acme crates to assemble a vehicle, enabling him to get to the next level of *Summer Camp*.

of suggestions to the Rowlands, Andy ended up heavily involved in both games – from writing the manuals to designing the graphics.

John Ferrari decided to take up programming to fill the winter months when he wasn't working as a builder. After producing numerous budget titles for Codemasters, John came up with the enjoyable *Summer Camp*. Maximus Mouse had to get to the Moon via a series of single-screen sections to find an

American flag for the opening of Camp Wotadump. A simple enough concept, but a sound one. John also worked on the *Arsenal FC* football game, viewed from the side when other games had adopted the overhead *Kick Off*-style view. Sadly, John died in 1996.

Thalamus published more titles for the Amiga and ST, but they were less well received. The 16-bit conversion of *Creatures* failed to make much impact, and Pieter Opdam's *Venom Wing* had

great graphics but difficult gameplay. Graphic artist Metin Seven worked alongside Pieter. Metin recalls, "It was like a dream signing a contract with Thalamus. They had become a respected name in the games business. I'll never forget when Paul Cooper came over to the Netherlands for a few days, and during that weekend we signed the contract. When the game was released it received reviews ranging from bad to satisfactory, and the satisfactory ones were published in *Zzap!64* and *The Games Machine*, both magazines from the Newsfield publishing company, who were the owner of Thalamus." A dispute between Pieter, Metin and musician Ramon Braumuller over the difficulty level saw the team split up. "Thalamus did pay a sum of money that corresponded to the proceeds they had estimated, but we have never checked what the actual proceeds from all *Venom Wing* sales were. Ramon and I used our share of the proceeds to travel to Britain and attend the Personal Computer World show together with Pieter." Pieter would go on to work at Team 17 on projects including *Worms*,

GAMES REVIEWS

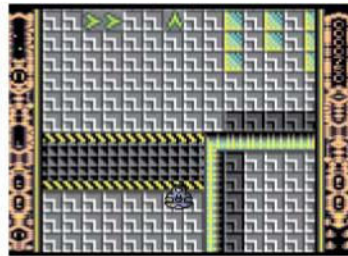


HEATSEEKER

C64, 1990

» Programmer Paul O' Malley's sequel to his earlier game *Arac* has an environmental theme and an unusual style. The player controls a Leg as it hops around the rainforest. On top is the Ball, which can be thrown out to kill enemies and, more importantly, absorb heat from fires. This heat can then be passed on to giant Plants, which open their leaves to protect the forest against acid rain.

81%



SNARE

C64, 1989

» A temporal portal hides a maze with the promise of a rich reward at the end of it. Programmer Rob Stevens took elements of *Tron's* light-cycle game and created some fiendish puzzles. Jumping, shooting aliens and hitting switches are made more difficult by the snap 90° turns of the screen as you move. Shiny graphics and great music from Martin Walker round out the experience, underrated at the time.

90%

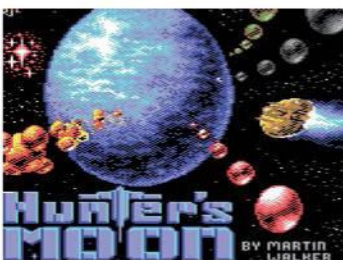


RETROGRADE

C64, 1989

» John and Steve Rowlands' rock-hard blaster has a very clever weapons upgrade system. The first step is collecting cash and the 'planet busters' from the surface. Then it's vertically scrolling platforms as you head down the ducts into the core. With the planet in ruins, the hero flies off to confront a huge mothership that is destroyed by shooting it to bits. A challenging game that is brilliantly presented.

95%



HUNTER'S MOON

C64, 1987

» Martin Walker's polished shoot-'em-up is worth revisiting. The enemy workers 'draw' the walls of the level as the player's Hunter spacecraft searches for starcells that show the way home. The puzzle elements become more devious later on, and the off-duty 'loop trainer' mode recalls Jeff Minter's work. An end sequence by Robin Levy and Cyberdyne Systems and some unusual sound FX make it memorable.

93%



WINTER CAMP

C64 & AMIGA, 1992

» What made this special were the cartoon graphics and varied styles of play. Maximus Mouse has to learn to ice skate, canoes down a river, throws snowballs in an *Operation Wolf* style level, follows a tune played on icicles and rolls down the mountain side in a giant snowball. All this to stop an eagle causing an avalanche! Elements of the game were inspired by a reader competition in *Zzap!64*.

86%



BOROBODUR

AMIGA, 1992

» *Venom Wing* was very tough, and Pieter Opdam's next game was just as difficult. Subtitled 'The Planet of Doom', *Borobodur* starts out as a platform game with some very polished graphics. After fighting your way through the jungle, it then switches to a 3D hoverbike racing game. The two styles alternate until you reach the final bad guy in his huge robot suit. Very tough, but it looked great.

79%



» *Delta* was a slick shooter. The Spectrum version wasn't.



» You could play *Sanxion* by looking at either screen.

while Metin and Ramon joined forces with programmer Reinier van Vliet to write numerous games.

THE SLIPPERY SLOPE

A big shock occurred when Newsfield went into liquidation. Thalamus had to go out on its own, trading as Thalamus Europe. Roger reveals, "My recollection is a bit hazy, but we let the then-management of Thalamus (which included David Birch) do a management buy-out on some kind of sliding payment deal over time; this was a short while before Newsfield's September '91 demise. Thalamus carried on for about a further two years, but in the end it was caught out in the squeeze of underfunding and the increased costs of developing for the new console devices. Certainly, before Newsfield let go of control, the drain on central funds due to the rapidly increasing development times was having a detrimental effect – if not on final profits, certainly on cash flow. I would never go so far as to say that Thalamus Games brought Newsfield down, but it definitely contributed."

"The big problem was Newsfield Publications going bankrupt," admits musician Ashley Hogg. "That was a short way into *Nobby The Aardvark* if I recall. For the most part, we were left to our own devices but, as usually happens, the project took longer than we were hoping. The up-front advance was pretty low, offset by a higher royalty rate, but cash was tight – always a problem for small developers anyway. Thalamus got bought out and Codemasters asked me to move to their locale and help out with a project.



» *Creatures 2* was a truly stunning sequel, and proved just what could be achieved on the Commodore 64 in skilled hands.

"AFTER SPENDING WHAT SEEMED LIKE DAYS ON THE PHONE WITH LAWYERS AND LIQUIDATORS, ALL OF THE THALAMUS TITLES, WITH THE EXCEPTION OF STAVROS'S GAMES, WERE LINED UP FOR A PHOENIX-LIKE REBIRTH"

ANDY ROBERTS

Dave Clarke and Jon Smyth finished up the C64 version over the following few months and eventually it got a release. The Amiga version died right there. But I was pleased that I managed to cram so much music into the C64 version." As for his memories of Thalamus Europe, at that time, "Thalamus was a really small outfit basically run by one guy out of a small office. Even handling production of one game, that was pretty tight back then. I also seem to remember the liquidators' reports making interesting reading..."

"Thalamus struck a deal with budget label Kixx to republish many of the older titles and provide much-needed cash. The last game to be released was *S.U.B.* (Strategic Underwater Battles), an Amiga strategy title imported and translated by Thalamus. The 62% score from Amiga Power was a sad end. Left in limbo were several titles (see UNRELEASED GAMES) including the potentially lucrative *Arsenal FC*. Gary Liddon says, "Best memory? Well it's just one big best memory. As for the worst? It was sad to see it decline over the years, then going bust."

GAME OVER?

There was life after death (of a sort) for Thalamus. Andy Roberts started a new label called Thalamus Interactive. With

Steve and John Rowlands on board, as well as C64 coder Jon Wells, the company was responsible for *Zidane Generation Football* and *International Karate Advance* on Game Boy formats. Andy says, "The initial premise was to bring the back catalogue to modern-day formats such as the Game Boy Color (which was just entering the peak of its life-cycle). After spending what seemed like days on the phone with lawyers and liquidators, all of the Thalamus titles, with the exception of Stavros's games, were lined up for a phoenix-like rebirth. The furthest we got was a GBA demo; getting original product on to the Game Boy was exceedingly difficult, most publishers preferring the security of a big-name licence. And thus we switched to developing original ideas and IPs, but with the emphasis firmly on quality (I'd always liked the way that the gloss and polish of Thalamus titles was of an exceptionally high standard; you were always guaranteed a top-notch product)." According to Andy, "The Thalamus back catalogue remains locked in a fireproof safe, just waiting for the right moment to make a comeback."

Roger Kean and Oliver Frey formed a new company called Thalamus Publishing. The book most games fans were interested in appeared in April 2006 – *The Fantasy Art Of Oliver Frey*, including several examples of Oli's artwork for Thalamus. Roger says, "There has been a decade-long discussion about a History of Video Gaming but it always looked like no-one would be that interested. Up until 1996 we were still heavily involved in creating hint and tip books on games for various book publishers like Virgin, Carlton and Prima in the United States. *The Fantasy Art Of Oliver Frey* by no means featured all the material the still remains in Oli's possession, so there will probably be a second volume for everyone to enjoy in another year."



» More frosty shenanigans with the aptly named *Winter Camp*.



AVOID LIKE THE PLAGUE

CREEPY (Amiga, 1990)

Not the finest moment in Thalamus's history, *Creepy* is an uninspired clone of *Snake* produced by a French team. The worm slithers around a maze, eating pellets and trying to avoid crashing into its own tail as it grows. It really did not stretch the Amiga or gamers and soon proved frustrating.

THE DELTA CONTROVERSY

Delta on the Commodore 64 had great graphics, an amazing in-game tune from Rob Hubbard (part Pink Floyd, part Philip Glass as suggested by Gary Liddon), and the unforgettable Mix-e-load: with a joystick, C64 users could remix the Rob Hubbard loading music. It also had the power-ups its predecessor *Sanxion* lacked. But *Delta* only got a 74% rating from Zzap! (and a bad review from Gary Penn in particular), due to the need to learn patterns and the tricky credits system for earning extra weapons (trying to pick up something you don't have enough credits for kills you, and you need to keep topping up the extras). *Delta* did earn a Screen Star from EMAP's Commodore User, but Your Sinclair voted the Spectrum version (*Delta Charge*) 'worst game of the year' in 1990. Many put this down to the rivalry between YS and Crash.





What links a heavy metal album, a James Cameron film and a mainframe computer? They all helped inspire Andrew Braybrook to make *Paradroid*, and he looks back to its creation and the games that followed with Andrew Fisher

Paradroid



IN THE KNOW

» PUBLISHER: HEWSON

» DEVELOPER: GRAFTGOLD

» RELEASED: 1985

» PLATFORM: C64

» GENRE: PUZZLE

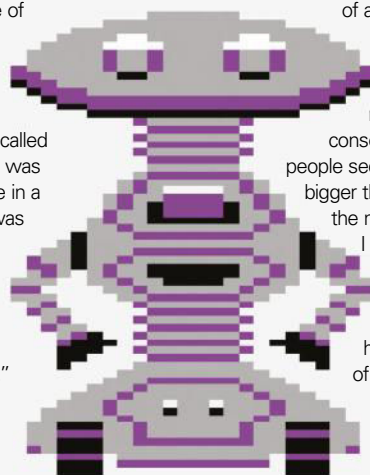
Andrew Braybrook started *Paradroid* after finishing *Gribbly's Day Out*. "It was our practice to print out the final version of the code and then add comments. It wasn't practical to waste disk space on comments in the code while writing the game so we'd spend two or three days adding notes to the code on paper. We'd also go to the launch of the game, usually at a bar in London, and maybe visit one or two offices to promote the game to the magazines. We didn't take a big break between games, there was a momentum to keep up." One of those visits ended up having an unexpectedly important outcome for Braybrook. "That all happened when we took *Gribbly's* to *Zzap!* Towers in Ludlow. They liked it, and Chris Anderson was keen to do something like a diary for the next game, and we thought that might be fun and

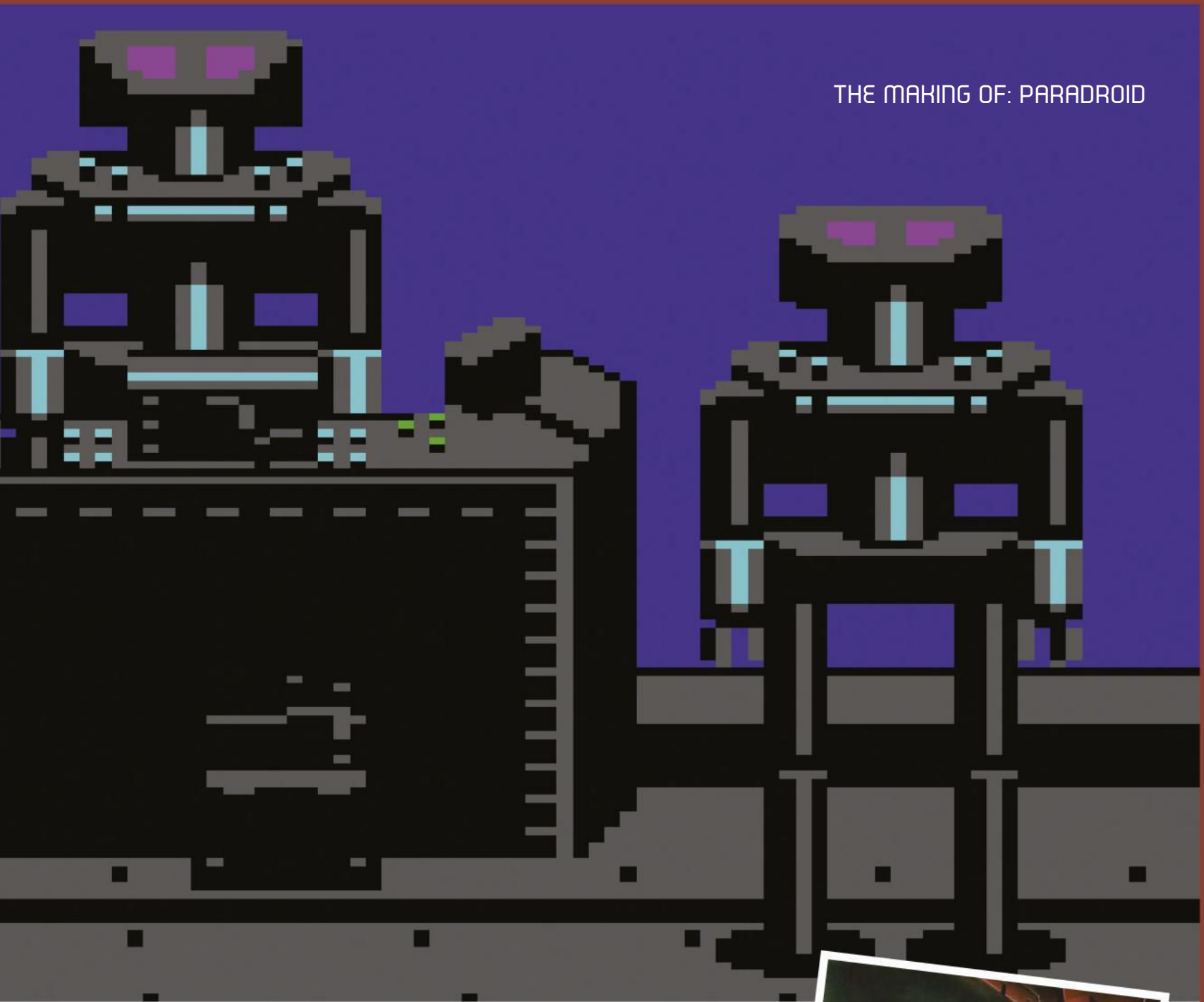
not too intrusive. I just wrote a paragraph every evening on the events of the day. I used to plan out what I was going to do that day on the walk to Steve's house, and that was all the planning I needed."

Andrew reveals *Paradroid's* main inspiration came from some of his previous work. "The game was originally based on a COBOL game I had written on the mainframe six years earlier, called *Survive*. The objective there was to be the last player left alive in a multi-level environment. It was a multiplayer game and had two computer-controlled assassins, so the players used to gang up on them to take them out first and then battle it out to the end."

Paradroid's distinctive look used an overhead view with robots depicted as their serial number. "The animation of Gribbly showed me that I could animate sprites and save a lot of bytes. Top-down games tend to need at least eight directions

of animations and that was going to be too expensive. So I figured that if I showed the robots bigger in the console lookup system to let people see the robots side-on and bigger than they might accept the numbers on the disks. I was also influenced by the cover of the Black Sabbath album *Technical Ecstasy*, as it had line-drawn blueprints of two robots." The cover





showed two robots 'interfacing'; the lyric sheet had the blueprints.

"I had tried to draw some real ship graphics but found it difficult to get a good look in multi-coloured graphics mode. I tried single-colour mode and that dictated a scale of the graphics that also didn't suit trying to look real, so the whole idea of the game being a radar-driven map was born. Quite possibly the movie *Aliens* had an influence on the look," says Andrew. One routine made things complicated. "The robot graphics are only shown on-screen if they would be visible by line of sight from the player, another *Survive* feature. The function to efficiently work that out was interesting to write with only three registers. We had the COBOL code to refer to, but it took a while to get that right. I also remember a mysterious crash which took me three days to find."

Interestingly, *Paradroid* was built around existing code that Andrew had available. "We

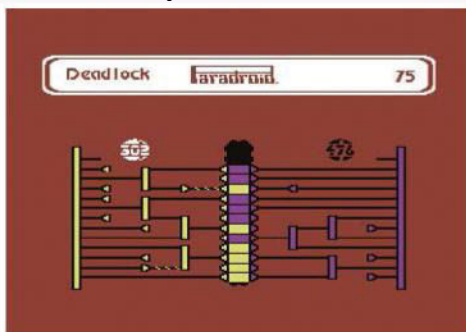
usually did strip down the last game. Things like the scroll routine, sound player, input routines and movement routines would be saved, possibly tweaked and tested before starting the new game," he explains. "That bought a bit of time to think about designs. I had a book of fonts and had inherited a multi-character printing system from *Gribbly's* that allowed me to make letters out of two characters high graphics, or 2x2 for capital letters. I needed a more futuristic font and set about drawing one from the book. I had bought a couple of editors for the sprites and character sets; that made life a lot easier as it was quicker to create the graphics." Lots of paper was used during production. "We did write a lot of stuff down, diagrams, formulae, that kind of thing, as we were just coding with the Spectrum and the C64, and they weren't well suited to loading up multiple applications at once. So a pad of paper was always handy." ►

» Oli Frey's original artwork for issue seven of *Zzap!* (with thanks to Roger Kean).



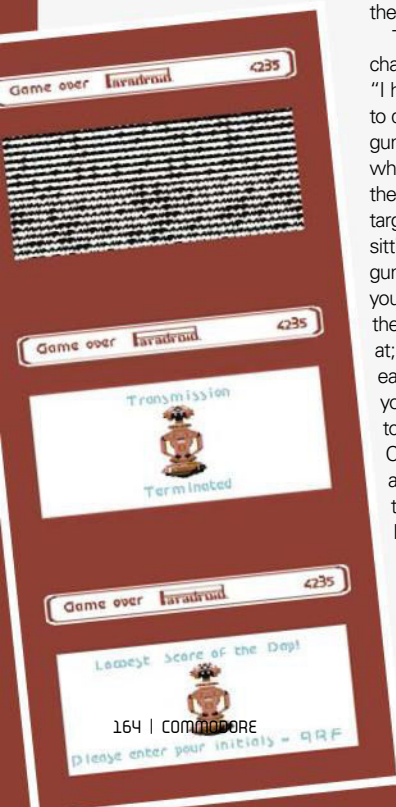


» The re-worked graphics of Heavy Metal *Paradroid*, released on the Rack-It budget label.



» This transfer game is deadlocked at six-all, the player must try again on a new layout.

» Game over. Static, the Command Cyborg as transmission is terminated, and a chance to enter your initials.



Mobile *Paradroid* 1180



» The lights go out when all the robots on a deck have been dealt with.

The 24 robot types had a small portrait shown when the consoles were accessed. "I had a budget for the number of sprites available, so I set about designing a system to reflect images in multi-colour left to right to save images, and there is some re-use. I wanted to group them by the top digit of the three-figure ID number, and having about three different robots per series seemed about right. I had to vary the features of the robots with speed and weaponry and that tended to suggest designs." Class 883 was familiar to viewers of *Doctor Who*. "I'm a big fan, it was just a nod to [the Daleks]. That became a bit trickier when I wanted to put them into the 16-bit version. We did draw the full graphics but bottled it at the 11th hour and changed them. I had also done a Dalek game for the mainframe, just with letters for graphics, so I had a fondness for the movement and the brutality of them."

Testing feedback changed the controls. "I had a couple of failed control modes, all to do with firing. I started with a separate gunsight that you optionally move about. But whilst it could hit a static target quite easily, there was no way you could hit a moving target, and you had to stop moving so you're a sitting duck. The second method had a floating gunsight in front of the player, but that meant you have to move straight at the thing you're shooting at; again making you an easy target, and you'll crash into your target if it proves impervious to your firing." Colliding with another robot in transfer mode launched the excellent sub-game. The player and robot

fought for control of a circuit board. Success gave the player access to the new robot and failure destroyed the current robot – meaning game over if that was the Influence Device. "I needed a way of balancing the game so that it would be difficult to move too far up the hierarchy of robots in one go. The transfer game switches the emphasis from many against one to one-on-one in an instant. It just all came together and worked in one go. That doesn't happen all the time, but it just worked. Steve even used it again in one of his games."

There were eight Robo-freighters to conquer, starting with *Paradroid* – which gave the game its name. Itsnothardenuff, the last ship, repeated. "The ships still get harder, it's all algorithmic, but the layouts of all the ships are the same as the maps do take up a fair amount of space. Each map is made of 4x4

improved Competition Edition. Who was behind that? "The marketing department, I would suspect. Once the game has been out for a while then they try and mop up the non-believers with a bargain."

Returning was easy, thanks to those copious notes. "As long as you're still using the same development gear then you stay familiar with the process, so it's not so difficult." Andrew continued tweaking *Paradroid*, resulting in a third version. "The Heavy Metal edition came about as I was doing *Morpheus* about two years later. I wanted to try out the graphics look and *Paradroid* was sitting there – so I redrew every character in multi-colour mode in that style and switched the graphic mode over. I decided to use the style in *Morpheus* and I

made some other speed tweaks in *Paradroid* and got it running at a higher frame rate, so I figured I should show everybody."

Steve Turner took inspiration from *Paradroid*

“The end of my C64 games was also the end of the lone programmer era”

Andrew Braybrook, on the transition to 16-bit

character blocks and the ship has 16 maps. I could only get to about the fourth ship, so I figured it was tough enough, and anyone who got through eight ships was going to be some kind of superhero."

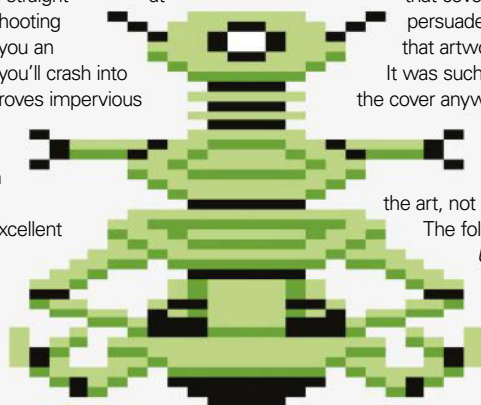
Oliver Frey's striking *Zzap!* cover celebrated the Gold Medal review. "I didn't like our box art at all, it looked so toy-like, but the robot on that cover had power. I tried to persuade them to let us use that artwork but they wouldn't.

It was such an honour to make the cover anyway, and the image was so good. The game graphics are supposed to aspire to the art, not the other way round."

The following Christmas a *Uridium* and *Paradroid* double-pack launched, featuring the

(see Droid Dreams boxout) and Graftgold created a 16-bit sequel. "After we had done *Rainbow Islands* on the Amiga and Atari ST I was looking for a new title. We had a lot of the tools developed for the map building so it seemed a good fit for the code we had. Dominic Robinson had written a game core system that gave me a ready-made interface to the hardware." Was it an easy transition? "We were keen to write on 16-bit. The big transition was going from character-based backgrounds to bitmaps, which I had used on *Lunattack* and on the Dragon 32, and Steve had used on the Spectrum, so we knew what the plot routines had to do. The code was lovely; all those registers. It gave us a real freedom."

"The biggest change, and I didn't twig it at the time, was that the end of my C64 games was also the end of the lone programmer era. After that it was a team effort. I usually had someone else help out with the sound



WE ARE THE ROBOTS

These are the droids you are looking for



TYPE 101

■ The player starts off controlling the Influence Device, armed with a weak laser. Lose this and it's game over.



TYPE 123

■ The slow-moving disposal robot is very weak.



TYPE 139

■ This is another disposal robot that sweeps up after itself.



TYPE 247

■ This servant robot was one of the first to use an anti-grav system, but is not armed.



TYPE 249

■ You cannot see this three-legged robot walking, but it is slow.



TYPE 296

■ The tray on this robot's head is for carrying drinks.



TYPE 302

■ A faster-moving messenger designed to carry parcels.



TYPE 329

■ A small wheeled robot, it is unarmed and so the Influence Device's laser is used.



TYPE 420

■ The higher the robot's class, the more pulses available in the transfer game.



TYPE 476

■ This is the first robot with a strong single laser. Worth seeking out in the early stages.



TYPE 493

■ Another maintenance robot, this one carries its own toolbox.



TYPE 516

■ Usually found on the top decks of the ship, befitting its crew droid status.



TYPE 571

■ The crew droids may move quite quickly but have no armament of their own.



TYPE 598

■ Crew droids may also be fairly well armoured, taking multiple hits to kill.



TYPE 614

■ The first of the Sentinel droids, all armed with strong lasers.



TYPE 615

■ Moves slower than 614, but it is equipped with good sensors.



TYPE 629

■ The console describes an unseen variation with an autocannon instead of a laser.



TYPE 711

■ Battle droids are heavily armed and armoured. The small laser of the Influence Device will not damage them.



TYPE 742

■ Another tough battle droid, the disruptor's explosion flashes the whole screen black and white briefly and damages nearby robots.



TYPE 751

■ This battle droid became the face of the game, on Oli Frey's cover and the loading screens for later versions.



TYPE 821

■ Twin lasers and fast movement make this a formidable opponent.



TYPE 834

■ Another fast mover, so be on your guard around it.



TYPE 883

■ The dreaded 883 inspires fear in humans for some reason.



TYPE 999

■ The ultimate Command Cyborg can only be influenced for a short time before the player must seek a new host.

ALL HANDS ON DECK

Andrew Braybrook gives insight into Paradroid's ship design



OBSERVATION

1 The two halves of the observation deck are accessed from different lifts, and both must be cleared of robots to shut the deck down.

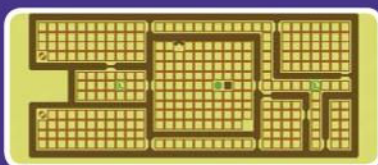
RESEARCH

5 "Generally crew droids here. Possibly sentries too."



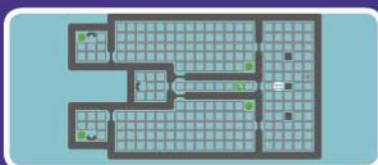
AIRLOCK

2 The airlock's main features are the four energisers at one end and the single lift at the other. It is usually sparsely populated.



REACTOR

4 "You would generally find crew and maintenance droids here. Since the crew droids would not be heavily armed they would only act as a staging point to larger robots."



ENGINEERING

13 "Crew and maintenance droids will mainly be in attendance here. Messenger droids might be here too."

MAINTENANCE

14 "A high percentage of maintenance droids with some lower level ones in case of emergencies."

11 MID CARGO

UPPER CARGO

6 "The cargo is mainly battle droids, so expect a contingent of dangerous droids." The same is true for the vast mid cargo deck below, often including the 883 patrolling among the cargo containers.

► effects and music, but apart from that I did the vast majority of the graphics and the coding. That gives you confidence in the code; you know exactly what is going on all the time. I did do some *Paradroid 90* graphics, but I had to become a team leader too." That team included Dominic Robinson and artists John Cumming, Michael Field and John W Lilley.

Jason Page created the sound. "When I started at Graftgold, I was mainly a programmer but moved into the audio side of things. For music, I'd write the original using NoiseTracker. I'd then type in all the data as hex into the Graftgold audio player code. After *Paradroid* I wrote a new sound routine and editor, which we used in future titles." Did the original influence him? "Oh yes. Hence there being lots of warbling sounds and such like. They were iconic C64 *Paradroid* sounds, so

I wanted to keep those. It was important to keep the overall feel of the original."

Andrew explains why the decks scrolled vertically and abstract droids became proper graphics. "The ST wasn't keen on horizontal scrolling. We did have a full scrolling version on the ST, but it didn't look pretty enough. It took a lot of memory to prepare all the combinations of the graphics blocks. That decision didn't go down too well with the Amiga crowd! We had enough space to do the animations, and having 16 colours on-screen it seemed right to draw the graphics in a real style. We did try the blueprint style but it looked weak against some of the prettier games of the time."

The robot line-up changed, joined by new human raiders. "I wanted there to be some familiarity with the C64 content, it was a 16-bit implementation of the same game as far as I



DEVELOPER HIGHLIGHTS

MORPHEUS

SYSTEM: C64

YEAR: 1987

INTENSITY

(PICTURED)

SYSTEM: C64, ZX SPECTRUM

YEAR: 1988

URIDIUM 2

SYSTEM: AMIGA

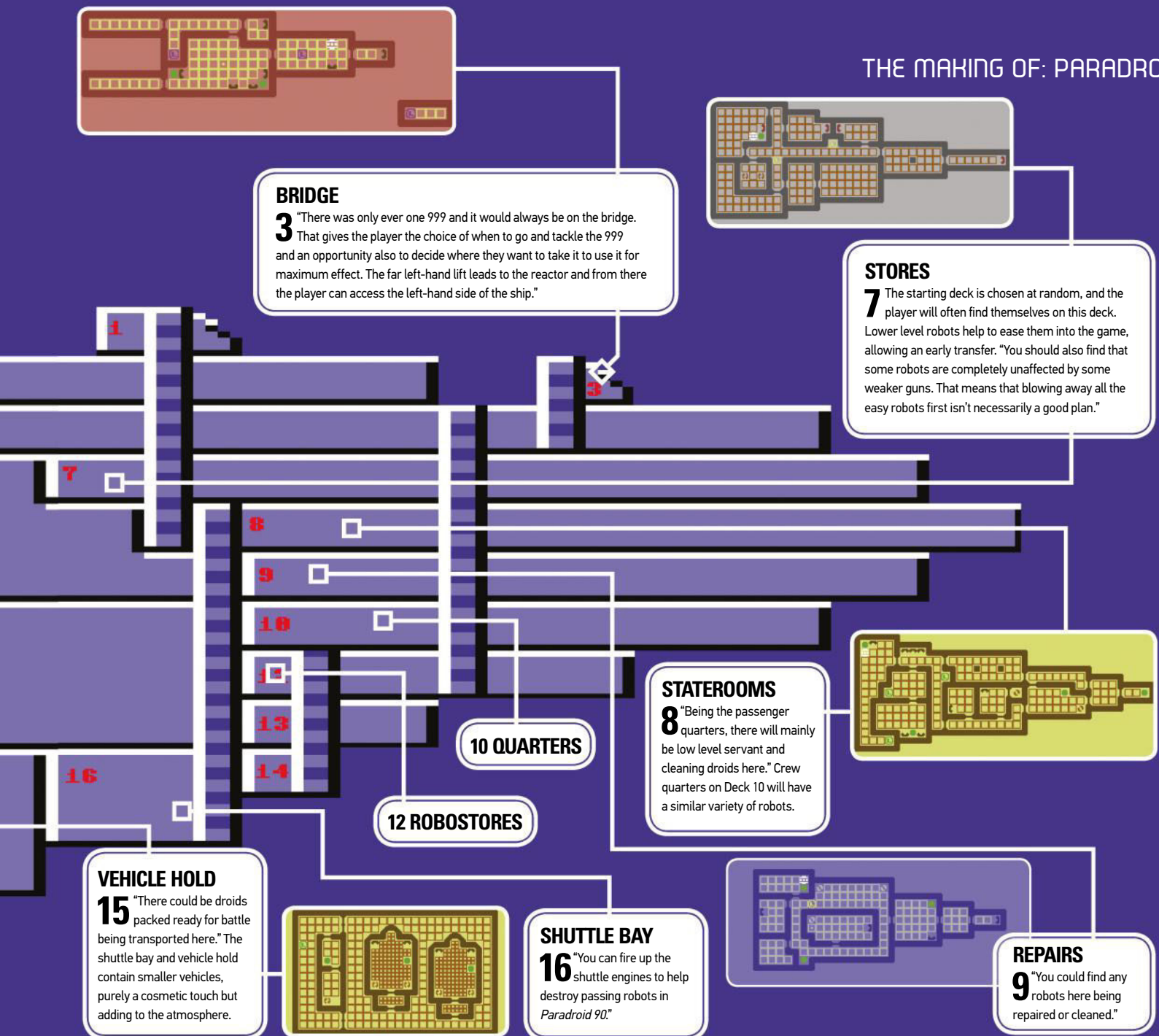
YEAR: 1993

was concerned. The raiders were a mechanism to speed up progress towards the end of the ship when there aren't so many robots about. There was also a bonus pirate ship that you got at the end if you had completed all the ships and collected all of the Graftgold keys. It was only a small ship, but very tough."

Would Andrew have changed anything? "*Paradroid 90* was as good as it could have been. If we had done another Amiga version then it would have scrolled in all directions and run at 50 frames a second. There were difficulties so we'd have used a different publisher in hindsight." Andrew reveals Gary Foreman was close to completing a PC Engine version with a two-player mode; development was halted by Hewson's bankruptcy.

Paradroid 90 became *Paradroid 2000* on the Archimedes. "We just thought it sounded

THE MAKING OF: PARADROID



really futuristic. This was 1991 or 1992 and 2000 seemed a long way away," says Andrew Catling. "My childhood heroes were people like David Braben, Orlando, Geoff Crammond and Andrew Braybrook so it was a dream come true to make games. Coin-Age had a deal with Graftgold to convert their games to the Arc. I'd just finished *The Last Ninja* for Superior Software when they got in touch."

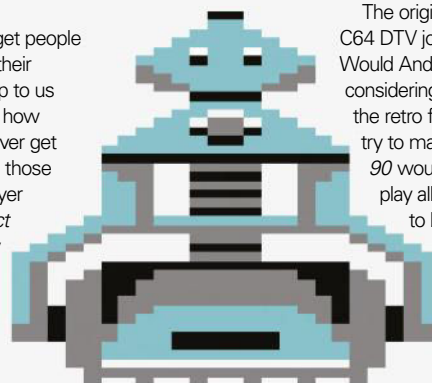
"The 68000 code was adapted from *Rainbow Islands*. I decided I'd rewrite everything from scratch rather than try to translate it. I wasn't familiar with 68000 but I could get the gist of how things worked and how the data for the different droids was used. I was quite pleased with the transfer game, as that was the first time I'd used recursion in ARM assembler and it was quite an elegant solution. It took three months to rewrite the

whole thing. I didn't have a lot of graphics work to do as they were just ported from the Amiga." Does he still play *Paradroid*? "Luckily, some amazing archivers have managed to preserve all of my old games, so I've been playing them again recently. I think *Paradroid* still stands out as one of the best, mainly because of the timeless design."

Fans help *Paradroid* live on. "We get people asking if it's okay to do a remake for their university project, and it's not really up to us any more. I don't think people realise how much detail is in a game, so most never get completed," says Braybrook. Among those that were completed were a two-player Amiga PD version and Ovine's *Project Paradroid* on PC. *Paradroid Redux* by Jorma Oskanen is an ongoing C64 project, with a faster frame rate

and bug fixes. Andrew notes, "I do hope he's talking about his own bug fixes, because I am not aware of any bugs in my code! The Heavy Metal edition was running at the improved 25 frames per second." Reinhard and Johannes Prix started the open-source Freedroid project, which recently launched on Android.

The original *Paradroid* appeared on the C64 DTV joystick and Wii's Virtual Console. Would Andrew himself ever go back? "I am considering writing something new that retains the retro feel of *Paradroid*. I would probably try to make it a shorter game as *Paradroid 90* would potentially take about 3 hours to play all the way through. It would have to be something new though, maybe the game I would have written without hardware restrictions." We can't wait.



» RETRO REVIVAL

ALIENS

"IT'S COMING RIGHT AT US"



- » PUBLISHER: ELECTRIC DREAMS
- » RELEASED: 1987
- » GENRE: ACTION
- » FEATURED HARDWARE: C64
- » EXPECT TO PAY: A FEW QUID



HISTORY

With today's cutting-edge aesthetics, it's hard to ever imagine that we could once get scared senseless

by a humble 8-bit computer game.

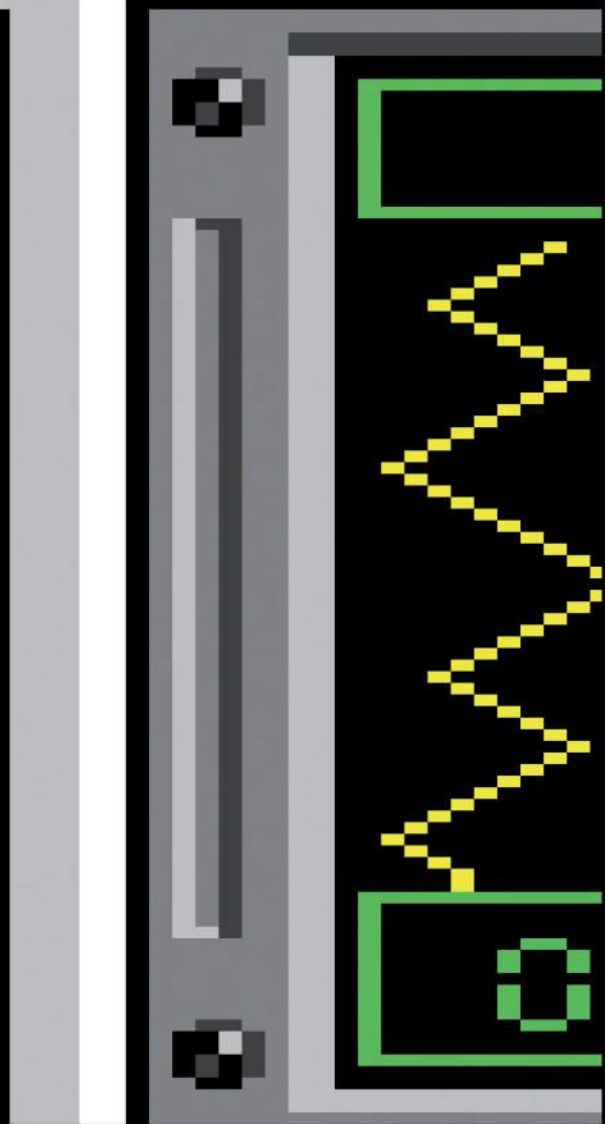
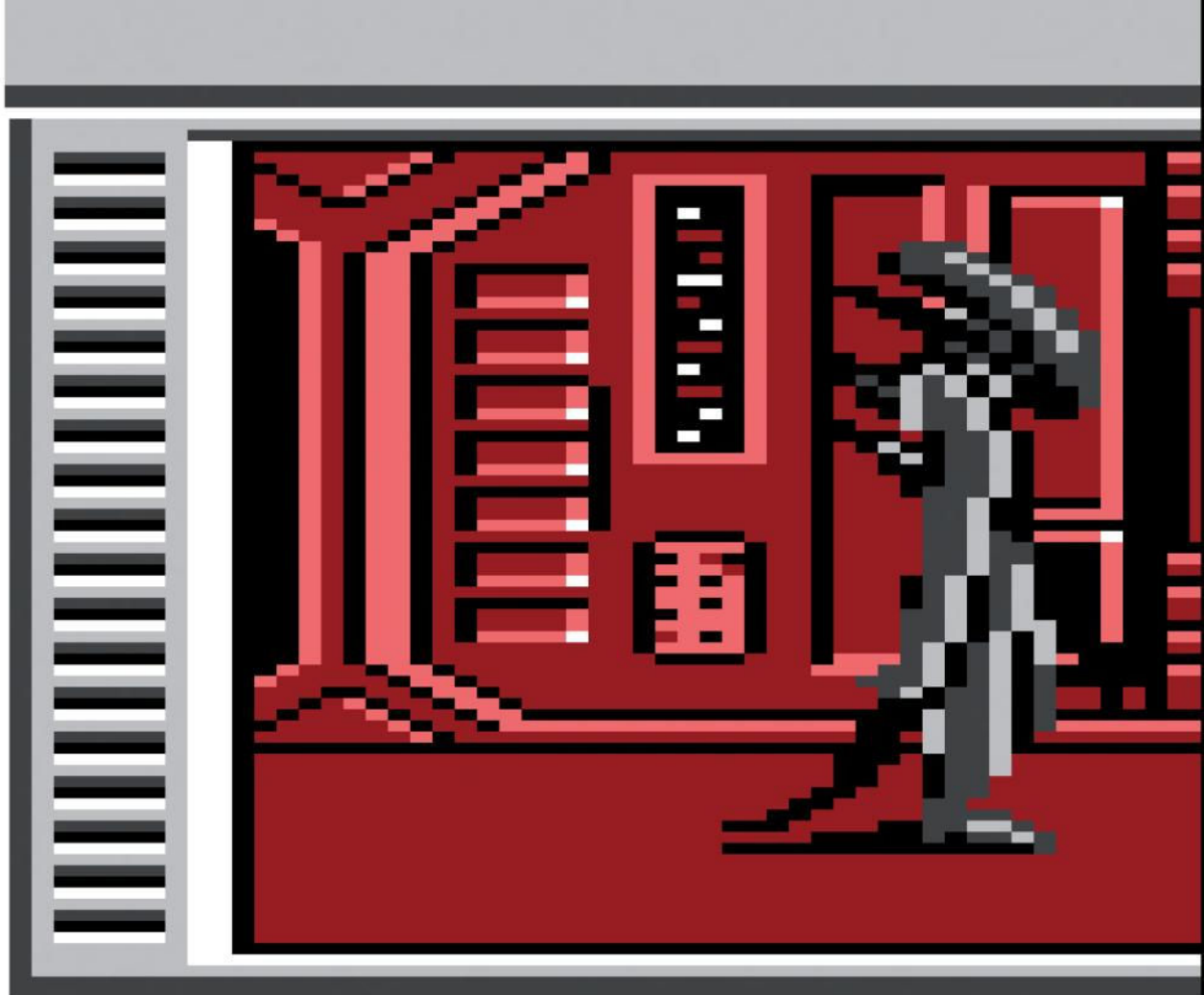
Nevertheless, Electric Dreams' wonderfully chilling adaptation of James Cameron's *Aliens* did just that – and how.

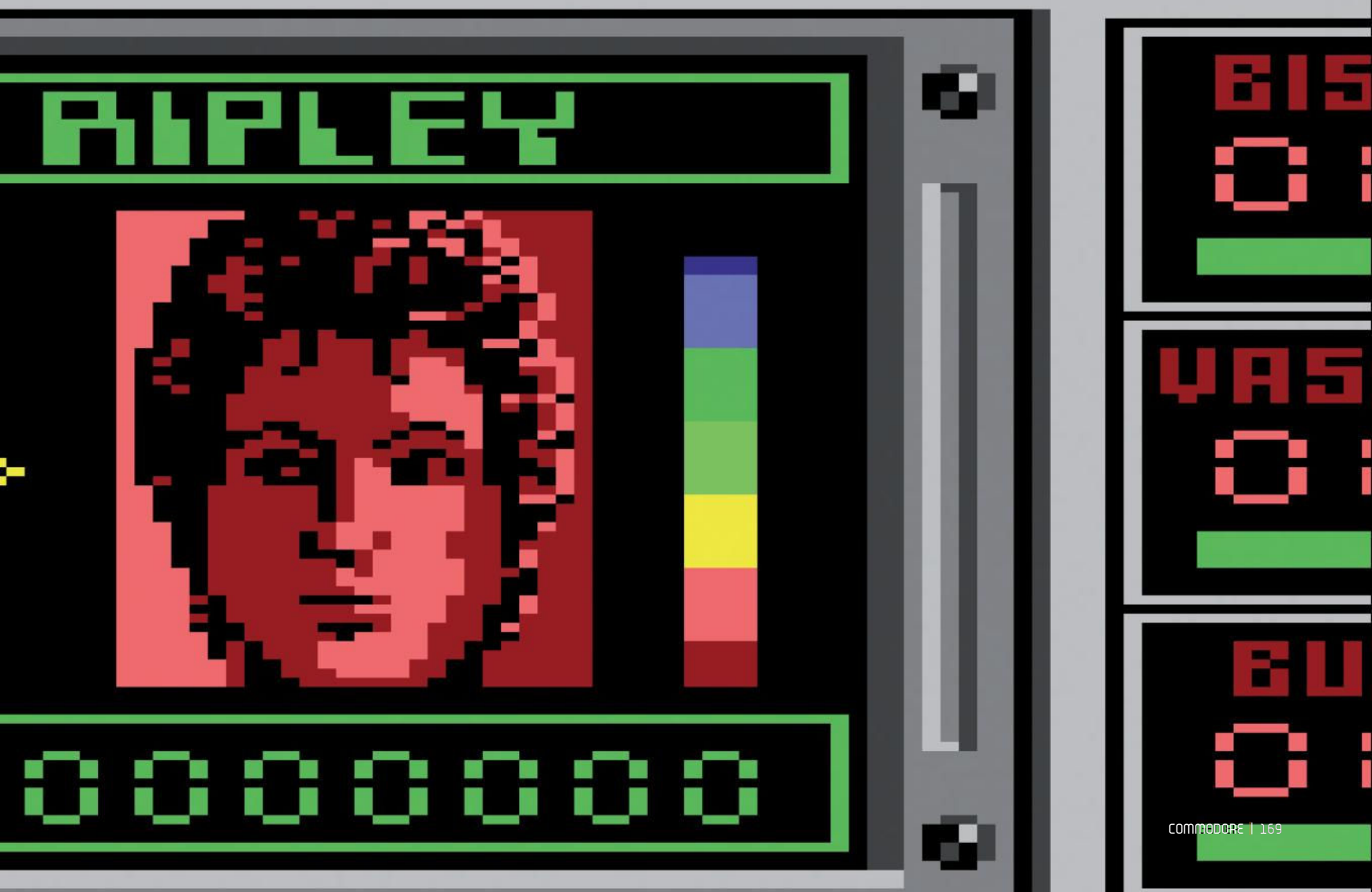
Alright, so the likes of *F.E.A.R.*, *Condemned* and the *Silent Hill* franchise have presented terror in a whole new, far more realistic way, but it's amazing to think that playing *Aliens* was so intense that there was a time when I couldn't even load it up, let alone play it, unless my bedroom lights were on.

Despite being incredible basic to look at, *Aliens* dripped with atmosphere and was quite unlike any movie conversion of the time, and not just because it was so bloody good. The first-person view used in the game perfectly matched the moment in the film when the pumped-up marines start exploring the deserted base and, as the game progressed, it managed to capture all the terror and confusion of the movie in a way few other titles have managed.

Taking control of one of six soldiers, including Ellen Ripley, your aim was to search the narrow corridors of the abandoned base to find out what happened to all its inhabitants. As you made your way through the claustrophobic rooms, your ears were treated to an incredibly eerie soundtrack – all jarring notes and jangling bleeps – that made the hairs on the back of your neck stand up; it made you wish you'd invited a friend to share the fear.

As scary as this initial exploration was, nothing could compare to when you finally tracked down one of your xenomorphic foes. A once slow beep from your scanner would continually rise in pitch and frequency as you drew ever closer to the alien nightmare. Take too long firing or, worse still, miss and the terrifying foe would rapidly move towards you, filling your ears with that painful alarm and your viewing screen with static. It may well be true that "In space no one can hear you scream", but when you're playing *Aliens* on your own it's quite a different matter...





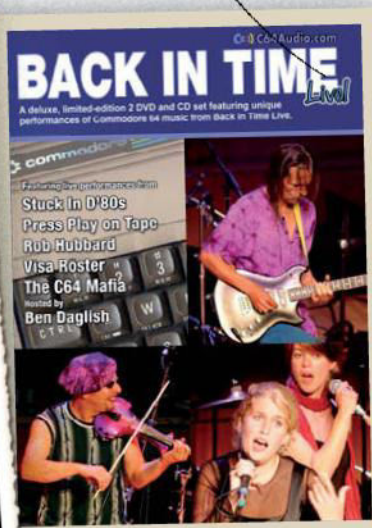
Ben thinks outside
the beige breadbin

Ben Daglish

What cherished games would you take to the island?

Ben Daglish provided the soundtrack to your 8-bit youth, creating hundreds of memorable tunes for the Commodore 64. Here he tells Paul Drury about music, mushrooms and making the SID sing

Want to see Ben playing live? Head to www.c64audio.com and get his DVD for £19.95



“The inspiration for my music?” muses Ben Daglish, while taking a hard drag from a reflective roll-up. “Does it sound good? You’re walking down the street and you go, ‘Boo-de-de-boo... Yeah, that sounds cool. What chords is that?’ Every time I wander past the piano, I’ll play a couple of random chords and...”

Ben jumps out of his seat, sticks the fag in the corner of his mouth, flicks back his hair and bangs his bony fingers down on the keys of the nearby upright piano. “Oooh, that’s a nice little sequence,” he grins, and he’s off into the music of his mind.

To say music is an integral part of Ben’s life is something of an understatement. The walls of his charming Derbyshire home are adorned with all sorts of weird and wonderful instruments, which he’ll often grab nonchalantly and begin strumming, beating or blowing. Our interview is frequently punctuated by him bursting into scat versions of different game tunes, whether the inescapable *Tetris* song or something from his own illustrious back catalogue of videogame music. That’s why we’re here, of course. Even if you don’t recognise the name Ben Daglish, those of you who had a C64 in the Eighties will almost inevitably have blasted, bounced or burrowed to Ben’s rhythm.

“For composing on, the Commodore 64 was my first instrument,” he smiles. “It was the first time I was able to do stuff that was more than I could purely conceive in my head. I could think of something that I couldn’t play... and then play it! You could think of sounds that didn’t exist and then create them! You could break out of just what you could do with your fingers. People would ask me back then if the SID chip

had been pushed as far as it could go. Well, has the flute? Has the piano?”

For Ben, the trusty 64 was not just a machine to re-interpret tunes; it was a unique musical instrument in itself. The wonderful Sound Interface Device chip inside the beige beast was pulsing with possibilities, and Ben was going to make it sing. Yet his musical upbringing was considerably more traditional. His parents ran a folk club in Ealing and the legendary singer Martin Carthy once bounced Baby Ben on his knee between sets in the mid-Sixties. The family left London while Ben was still in nappies and moved to Stannington near Sheffield. There, among the hills of the Peak District, his mother taught him how to play penny whistle, and his precocious musical talent began to grow. Folk, jazz and classical music was the soundtrack to his childhood, until the intervention of secondary school classmate Diane Mayers.

“She came up to me and said, ‘Ere, you play drums, don’t you?’,” recalls Ben. “My main study was orchestral percussion. So she thrust this Walkman at me and it was playing Led Zeppelin’s *Moby Dick* with Jon Bonham’s live drum solo. Up to that point I was a short-haired academic

little boy into classical music and studying.

Six months later I had hair halfway down my back and was hanging out with all the rockers, participating in all those things you did in the Eighties...”

Bless you, Diane, though the influence of another schoolmate would have an even greater bearing on Ben’s future direction. In the year above him was one Tony Crowther, a name familiar to Commodore gamers everywhere as

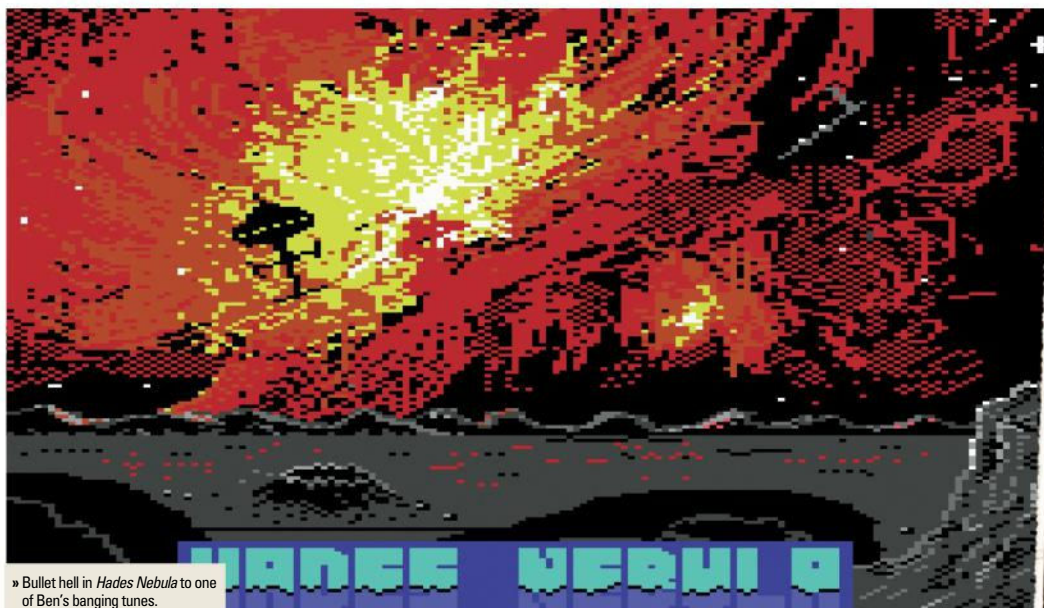
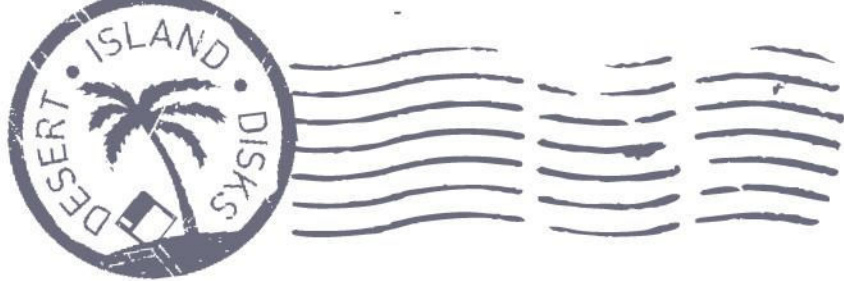
the creator of *Blogger*, *Monty Mole* and *Captive*, although at this stage he was still tapping out simple programs on the school’s BBC Micro. And that was partly thanks to Ben...

“I won a BBC computer for the school by writing this essay on how computers could be used in schools in the future,” explains Ben in a high-pitched geek voice. “I wrote a page and a half of crap and was amazed that a few months later, this 16K BBC Model A arrived. It was the only one in school and they kept it in the library. Because I’d won it, I was allowed to come in at lunchtime and play on it. So was Tony, because the bloke who ran the library knew Tony had already started mucking about with computers...”

The librarian-cum-software publishing entrepreneur was a chap called Ian Warby, who proceeded to recruit a select crew of schoolboy coders and released their output under the banner of Aztec Games. “We must have done 20-odd titles

Trivia

Ben recently did an interview for the Wii Channel, declaring his love of Impossible Mission on the Virtual Console. Nintendo sent him a Wii for his trouble.



» Bullet hell in *Hades* Nebula to one of Ben's banging tunes.

Ben in action



If you see SID, tell him...

"Rob Hubbard was the best, obviously," says Ben without hesitation when asked to rate his fellow C64 maestros. "He invented what you could do with the SID. He was always ahead. He was older than us and had toured the world as a keyboardist. He had the musical and the programming ability. I remember when he came to work with me on *Monty*; he had this secret two hours where he put our music together with his driver. There was this thing about 'Rob's driver'. No one saw it or how it worked. He was absolute top and then Martin Galway at number two. He was very good but he didn't really socialise. He only did stuff for Ocean whereas the rest of us were freelance and met up with each other. At one point in the mid-Eighties, Rob, David Whittaker and I were talking about becoming a unified force and setting up a company to do all the game music for every developer in England. Martin said he wasn't interested. He was happy to sit in his concrete bunker in Manchester doing his own thing. I thought he'd got a bit of a problem. I only really got to chat to him properly about four years ago at a Bit Live event and suddenly found out what a lovely, unassuming bloke he is. Oh and getting pissed with Dave was always an education."

For more on the wonderfully vibrant world of SID music, see www.hvsc.c64.org for those original tunes and then visit www.c64audio.com or www.remix64.com to hear clever things people have done with them. Plus look out for an in-depth feature in a forthcoming issue of *Retro Gamer*.

and they sold loads," says Ben. "Almost every school in the country had something from us. We never made any money ourselves, but every six months, Ian would take us all out for a slap-up meal at the local steak house."

This *Beano*-like arrangement may not have delivered immediate rewards beyond a full stomach, but it did give Tony and Ben a taste of the emerging software industry. Thus when Ben dropped out of a degree in maths and computing at Essex University, bored of doing "Noddy little Pascal programs", he discovered that his old mate Tony was producing full commercial releases for Alligata and in need of a little musical assistance.

"Tony asked if I could do him a death march for *Potty Pigeon*," remembers Ben. "Then he wanted Jean Michel Jarre's *Equinoxe 5* for *Loco*. He'd write the driver and I'd type in the notes. I enjoyed doing it but it was when I heard the version of *English Country Garden* on Jeff Minter's *Hover Bover*, the lovely job they'd done with just three voices, that I thought 'Ooh, you can do interesting stuff with this thing...'"

The boys got busy and after a week of working through the night, fuelled by coffee and Thousand Island dressing sandwiches, they had put together a demo showcasing their efforts. The WEMUSIC sampler – the convenient acronym stands for 'We Make Use of Sound In Computers' – was duly distributed on 5¼-inch floppy disk to various software houses, taken to computer shows and uploaded to the proto-web service Compunet, and very soon the phone started ringing.

"I'd get calls from Gremlin, BT Firebird, Alligata, of course," remembers Ben. "Early on I'd be like, 'Ooh yeah, can I come and see a demo?' I'd go to the office, see the game in development, talk to the programmers. Other times, I'd do

it without seeing the game. 'You want generic martial arts music? For the day after tomorrow? There you go...'"

Which reminds us of his work on *The Last Ninja*, particularly the memorable and much-remixed Wastelands theme. The music seems to complement the on-screen action so beautifully that surely he was intimately involved in the game's development?

"No, that was all done on the phone," laughs Ben, "though there was quite a lot of talking, if I recall. Mark Cale [head of System 3] was pretty specific about what he wanted and he wanted a lot. I did half and Anthony [Lees] did half. Mark would say, 'We've got this level and this happens.' I think I

saw some graphics too but not a demo and I think I spoke to the programmer John Twiddy, too. The main task after doing the music was integrating Tony's driver code into the game. He'd done a lot of work getting his code as small, as fast and as tight as possible. It was all about raster time; how much CPU time you could take up. I turned up in London with the disks and played around with the programmer for a day getting it to all work. Then Mark turned to me and said, 'So how much do you want

for this?' I think I was charging a grand or two. He said, 'I'll give you my BMW.' He had this dodgy left-hand drive he'd brought into the country under dubious circumstances. I later found out that was fairly typical of how he did business..."

Ben wisely decided to take cash instead. Indeed, the readies were rolling in through the second half of the Eighties, with Ben estimating he contributed music and sound effects to over 200 titles, charging anywhere between a hundred and a thousand pounds a time. "An average job would be intro music, tunes for five levels, 30 sound effects and a death tune. I'd do that for £500, which was a week's work

Trivia

Up to the age of 14, Ben's musical tastes were folk, jazz and classical. It was Tony Crowther who introduced him to the joys of Jean Michel Jarre and the Yellow Magic Orchestra.

Timeline

1984

1984

1987

1987

POTTY PIGEON

■ YEAR: 1984

■ VERSION: C64

Ben's first game music was the death march theme that accompanied your demise in Tony Crowther's feathery take on *Defender*.



LOCO

■ YEAR: 1984

■ VERSION: C64

This excellent version of Jean Michel Jarre's *Equinoxe 5* first brought Ben's talents to the attention of the games press.



KETTLE

■ YEAR: 1987

■ VERSION: C64

Ben assures us that this demented take on *Polly Put The Kettle On* was not inspired by any funny mushrooms in the teapot.



THING BOUNCES BACK

■ YEAR: 1987

■ VERSION: C64

Ben based the music for this sequel on Rob Hubbard's work on the original *Thing On A Spring* and was particularly chuffed to get the boing right.



The Team On Daglish

Here's what **Retro Gamer** has to say about Ben's compositions...



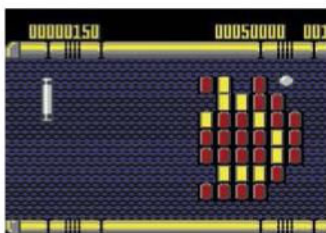
Darran Jones

Not owning a C64 when I was a child meant that the only times I heard Ben's work was when I was over a friend's house. That all changed, however, when forum member Markopoloman played a CD of his greatest hits on the way back from the last Retro Fusion event. Even now I can't work out how he made the C64 sing, but I'm glad he did.



Paul Drury

Try playing a game with the sound off. It's just not the same, is it? Growing up as I did with the C64, Ben's work is inextricably linked with so many great gaming memories, yet his musicianship means those tunes stand up on their own merits. And you must witness him playing live. He really does put the 'mentalist' into 'multi-instrumentalist'...



Stuart Hunt

Music in videogames can easily play second fiddle (pun intended) to the glitz of great graphics, but soundtracks play a vital role in helping to create a tangible atmosphere in games. Ben produced music for two of my favourites: *Switchblade* and *Kettle*. And I think Ben's compositions complemented the themes, visuals and gameplay of these games brilliantly.

or sometimes a day's," he grins. "Sound effects were a pain in the arse. Piddly f**king 'booo' – there you go. Then they'd say, 'No, we want it a bit more atmospheric.' Christ..."

Ben grimaces before gurgling through some more of his best spot sounds. He openly acknowledges that he can't remember half the work on his long list of credits, partly because he was never told the name of the game in the first place, but he does recall fondly some of his collaborations with Tony.

"Tony is the most naturally gifted programmer I've ever known, and I've known a lot," he smiles. "*Trap* was the classic one. I saw the game from its conception. We had this idea of putting in the demo at the end. The idea was always to hide it away but then it turned into this ten-minute opus. Possibly it was a shame that it was hidden away but then it was a good reward for finishing the game. *William Wobbler* was another one. That was the first time I did a separate soundtrack for a cassette, using an early Korg synth. An ultra-bouncy tune that went so well with the movement of the character..."

And he's up at the piano again, banging out the jaunty tune and thrusting his chin back and forth like Quagmire from *Family Guy*. Those were heady days indeed and none more so than when he got to collaborate with one of his heroes.

"I was doing the music for *Auf Wiedersehen Monty* for Gremlin and as Rob Hubbard had done the original, they thought it would be nice to have him come in on it too. Rob's just the best and I felt completely unworthy. I had this little office and we just crammed in it and jammed on the keyboards for three days. I don't remember sleeping. Jammed, drank and toked... and magically this piece appeared."

By this stage, Ben had become the in-house music man at Gremlin, lured away from freelancing with the promise of his own studio, an Atari ST and the best musical gadgets 1986 had to offer. He got to work with such talented programmers as Colin 'Fungus The Bogeyman' Dooley, Shaun Hollingsworth and Pete Harrap, and he talks fondly of his soundtracks for *Federation Of Free Traders*, *Dark Fusion* and *Cobra*.

"We were the Gremlin lads, getting pissed every night at the pub across the road," laughs Ben, "and it was great... for a year. You can tell with the music when it becomes a job, writing stuff by rote rather than being inspired. The company had grown, there was a lot of work and I was handling it all. I was knocking them out. When I was knocking them out ten at night till four in the morning it still felt creative and

“People would ask me if the SID chip had been pushed as far as it could go. Well, has the flute?”

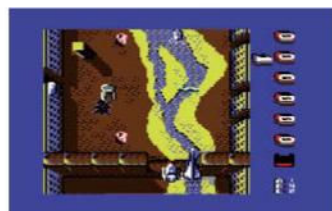
The C64: the 8-bit that keeps giving...

“Daglish on Daglish”
We asked Ben to pick his three favourite tunes from his extensive repertoire of game music



■ THE LAST NINJA: THE WASTELANDS

I've always been amazed by the reaction it's had. I think it's because all the bits come together really nicely. I find it heartening that people see the point of the tunes out of context, listening to them not as they're playing the game.



■ TRAP

Because of the orchestration. I got tims, a string section... When Chris [Abbot] arranged it as an orchestral piece, it was a good one! My biggest, hardest, longest piece, as it were. I wrote a nine-voice arrangement and Tony [Crowther] used the joystick ports to synchronise the C64s.



■ DEFLEKTOR

A corking bit of rock with great cowbell. That was the reason it came out as it did. I'd discovered how to do this really good cowbell sound.

There must be a good 20 remixes out there. I love the dub reggae one, and Reyn's [Ouweland] version with the 'Day On's' is beautifully done.

Ben regales us with another from his instrument collection



1987

1989

1991

1997

KRAKOUT

■ YEAR: 1987

■ VERSION: C64

A favourite among the Commodore 64 remix scene. "The live version by Press Play On Tape blew me away," adds Ben.



DARK FUSION

■ YEAR: 1989

■ VERSION: C64

With Ben's pumping soundtrack and graphics by Bernie Drummond, this scrolling shooter was a treat for eyes and ears.



SWITCHBLADE

■ YEAR: 1991

■ VERSION: C64

One of Ben's final pieces of music for the C64 accompanied this platformer-cum-beat-'em-up from Gremlin Graphics.



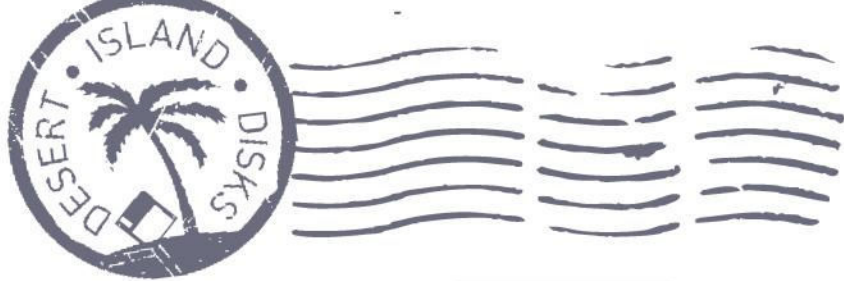
TOUCHE

■ YEAR: 1997

■ VERSION: PC

Ben not only provided the soundtrack to this adventure but also scripted it and devised some of the esoteric puzzles.





Readers' Questions

■ **Drewbar:** For me, *The Wastelands* from *The Last Ninja* is the peak of C64 music. Where did the inspiration for this sound come from?

From the Orient! [laughs] A famous composer once said it was nothing to do with visual inspiration, like seeing a beautiful sunset or something. Music's a completely separate thing. The inspiration for music is simply 'Does it sound good?'

■ **Necronom:** Which SID tune by someone else is your favourite? My favourite ever was *Masters Of Magic*, which I thought was Rob. [Ben jumps up and starts playing it] I only learned recently that he'd ripped it off from some American soundtrack composer from the mid-Eighties, which I was most disappointed by. He did a brilliant arrangement anyway.

■ **Doddsy:** Do you ever wish some dance act would nick one of your riffs? F*ck no. Actually a bit of *Last Ninja* got used on a record by *DragonForce*. He took the guitar solo note for note. I get 20p per album or something. I don't think they sold enough to cover the postage but yeah, they asked our permission. I get lots of people asking me if they can use a bit of my music in things so if a dance act wants to, then fine, but I'm not sitting waiting in hope.

■ **Northway:** Seriously, what did you put in the teapot when you did the music for *Kettle*? I did do a lot of mushrooms at school but it was just hash in those days. You can't compose when you're tripping out your face. Well, you can and you think it sounds wonderful when it's actually shit. Drugs contribute to my general outlook on life but I've never written better stoned or not stoned. And yeah, I've tried both ways.

■ **DRS:** Have you ever considered going back into programming game music? As soon as you could stream real music from a CD, that was the end of the programming side of game music. As soon as sampling came in with the Amiga, that's when the rot set in. Actually, I'm currently involved in a project with Jon Hare called *Sensible Soundware*. We'll be distributing various bits of music we've both done, old and new. Not necessarily just games music but stuff associated with it from our time in the industry.

■ **The Master:** Who is your favourite Doctor Who? Got to be Tom Baker. That question is really, 'Who was Doctor Who when you were 12?' isn't it? And the best that never was, Brian Blessed!

» *Firelord* benefited hugely from Ben's atmospheric score.



» *William Wobblers* was one of many collaborations Ben did with old mate Tony Crowther.

bohemian, but now it was trying to do it nine to five... I found I was going home at night and not listening to music. Plus I didn't like working in an office. Suddenly, there were all these blokes in suits talking about shipping boxes and they'd no idea what was in the box. It turned into a business and I didn't enjoy it any more."

Feeling his creativity was being stifled and not enjoying the new corporate ethos at Grenlin, he left the company, but he didn't quite leave game development just yet.

"This is hidden history," winks Ben. "There's nothing on the net about this." He lights another roll-up and proceeds to tell us the strange tale of lost arcade game *Septima*.

"A complete chancer called Stuart Firth managed to con a machine from Silicon Graphics, this big projector system off some other company and borrowed money from here, there and everywhere, with this crazy idea to build an arcade game. It had a big semi-circular console with up to seven players shooting guns at a screen the size of this wall. Spaceships were coming out of the screen at you and you had to blast them, like *3D Space Invaders*, basically. I remember doing the soundtrack in Wales with a studio engineer that used to be in T'Pau. Anyway, we had it running in an arcade in Portsmouth in a cubicle the size of this room for a couple of weeks in about 1988 or '89 and we showed it at a trade show in Blackpool. Sega loved it and wanted to buy it. They bought the prototype from us and some of us went over to Japan for evaluation. Sega said, 'Lovely. We'll have a hundred,' and we thought, 'That's it, our fortune is made!' Then suddenly they said, 'No thanks, we don't want it.' The money they'd paid for the prototype just about paid off our debts, but we had no money to build another one. We were stuffed. Two or three years later I saw a game by one of Sega's subsidiaries: a four or five-player shooting game almost exactly the same. Stuart

“We jammed, drank and toked for three days and this piece appeared”

Ben explains how to mix business and pleasure

was trying to get a court case together for ages but it didn't come to anything..."

Thoroughly disillusioned, Ben left games and began doing music for theatre with his partner, Sarah. He briefly rejoined the fold in 1992, working on 16-bit RPG *Legends Of Valour*. This was followed in 1997 by considerable input from Ben and Sarah on witty adventure *Touche* for US Gold. The company was duly impressed and was very interested in an idea he and Sarah pitched for a point-and-click adventure called *Gadzooks!*, set in Elizabethan London, until a buyout by Eidos abruptly ended the project. Ben now earns a crust through numerous musical enterprises and web design work, and thanks to his involvement in the Back in Time events and the marvellous SID'80s, who do stirring live versions of old game music including his own, he is a familiar face at 8-bit musical events.

"When I was writing those tunes, in my head I was writing for a rock band or string quartet and making the best arrangement I could on the C64, so to have them performed by rock bands is great. Playing live to my constituency – 50-year-old folkies and 30-year-old geeks! And I am King Geek!"

We'll see you all down the front at a gig soon, then. All hail to the king...

Ben Daglish's Desert Island Disks

INTERVIEW: BEN DAGLISH

01 Master Of The Lamps C64

Top game, great music and I liked the whole concept. A level of flying through the rings and then a level of the genie coming out of his lamp, smoking his bong. The first lot of 14 levels were colours and sounds, the next lot were just the colours and the next just the sounds. I was one of the few people who could complete it because I could remember the sequence of eight notes and play the bubbles like a keyboard.

02 Fable XBOX

I was very impressed watching *Fable*. I didn't play it that much but I watched the kids playing it a lot and it's just beautiful. Did they choose good or evil? Both! They played it through twice and I think they liked being bad most. A great game. Really lovely.

03 Doom PC

We'd all played around with 3D engines but *Doom* was the first that really made you go, 'Woah, this is the future of computer gaming.' And to be honest it still is the future. We haven't

The games that Ben just couldn't live without and why he loves them

really come on a long way since. *Quake*, *Halo*... they're all really *Doom*, aren't they?

04 Planetoids BBC

All those Acornsoft games were spot-on. The *Pac-Man* was great and this *Defender* clone was perfect. Swish, lovely... I spent hours, days, weeks playing this. Stunning. In terms of the accuracy it was a beautiful bit of programming.

05 Day Of The Tentacle PC

I liked all those LucasArts games but *Day Of The Tentacle* in particular. That was the one. Cracking plot and great clues. This is just the ultimate point-and-click adventure.

06 The Sentinel C64

The pillars, the hills, what was it called... ah yes, *The Sentinel*! Killer idea, killer everything.

Completely original. I've often talked of the lack of originality in the professional games market. You do get lots of originality on the net with people making their own little Flash games. Bizarre stuff is coming back in!

07 Impossible Mission C64

Always liked this. It's the one I was interviewed about for the Wii Channel. Those lovely running man graphics. The first running person that really looked like he was running before *Prince Of Persia* and stuff came along. The animation just made us go 'Wow!' We could sit and watch him run around for ages. Stay a while, stay forever!

08 Tetris GB

Because it goes ding, ding-ding-ding, ding-ding-ding, ding, ding, ding... for years! One of the few games that even now, ten years later, I can dig out a Game Boy, stick some batteries in, turn it on and I'm right there. I can play it all the way to the end, see the spaceship going off and the guys doing the legs. Yeah, *Tetris*!

01



02



03



04



05



06



07



08



RAID OVER MOSCOW

'PLAY IT LIKE THERE'S NO TOMORROW'



- » PUBLISHER: US GOLD
- » DEVELOPER: ACCESS
- » RELEASED: 1984
- » GENRE: SHOOT-'EM-UP
- » FEATURED HARDWARE: C64
- » EXPECT TO PAY: £5



HISTORY

Raid Over Moscow was the videogaming equivalent of Hollywood movies such as

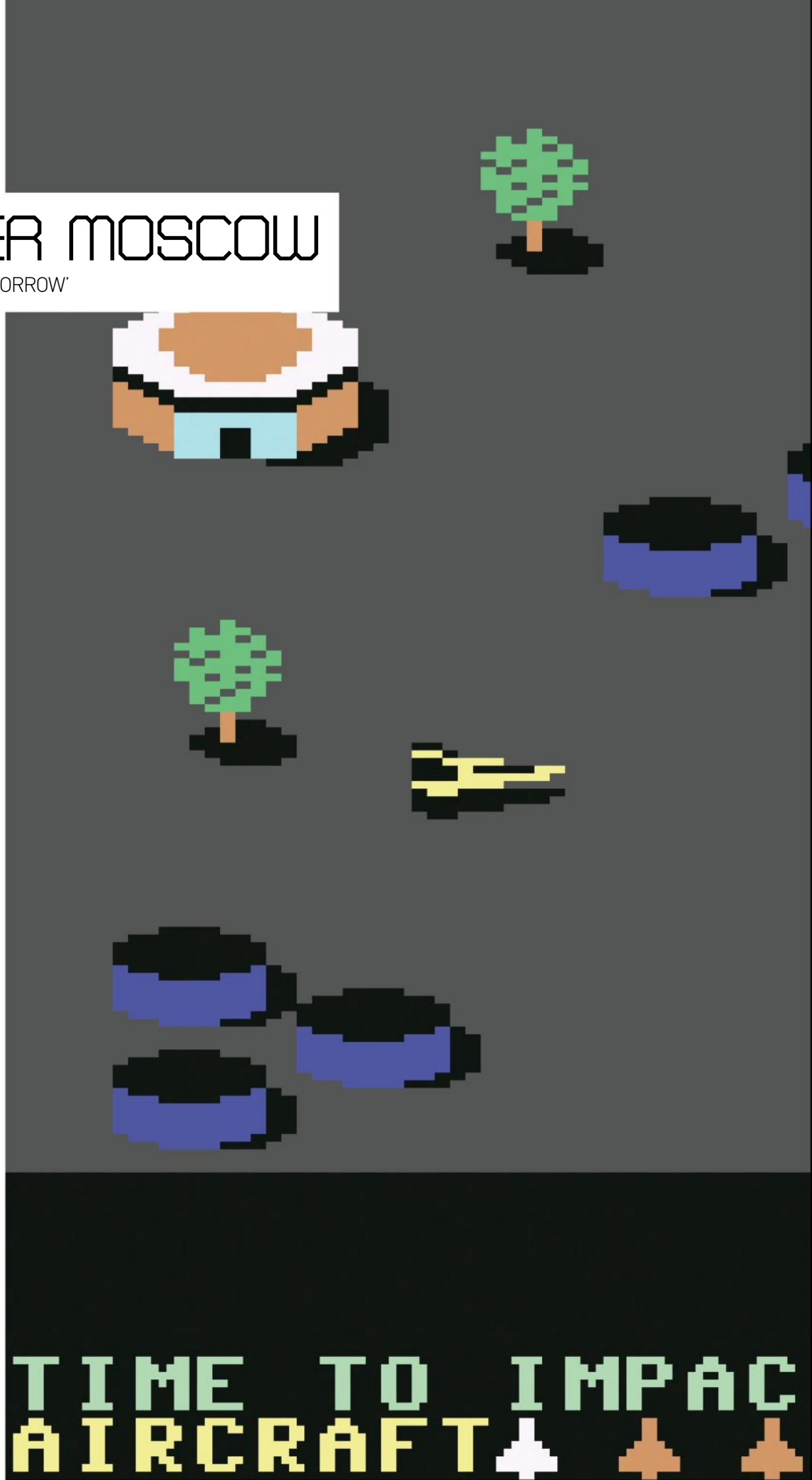
War Games or **Red Dawn**. Released amid Cold War tensions in the early-Eighties, it fed on Western paranoia of a perceived Soviet nuclear threat.

In reality, the Soviet Bloc was already crumbling, and the Cold War was about to end under Gorbachev's leadership and reforms, post-1985. Luckily, the Carver brothers, creators of the huge-selling *Beach Head*, were willing to give us one last chance to defend the freedom of peace-loving Americans everywhere, by travelling to Russia and blowing Moscow to smithereens.

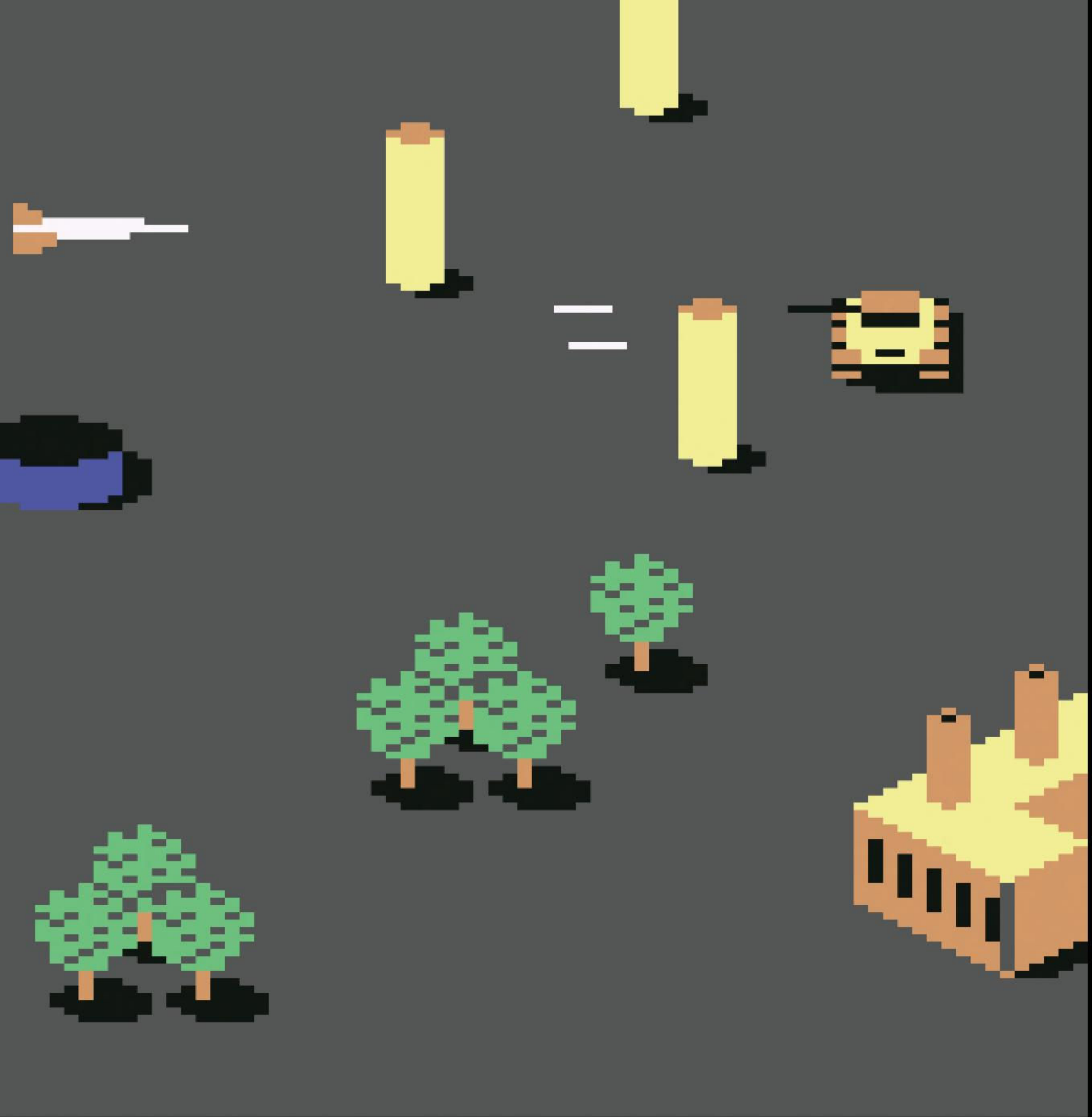
Raid Over Moscow followed a similar path to *Beach Head*, splitting progression into a number of linked sub-games. As a heroic stealth fighter-pilot manning an orbital space station it was your job to prevent Soviet nuclear strikes on a number of major American cities, by blowing up the missile control bunkers on Russian soil.

During the Asteroids-style launch sequence, many a would-be stealth pilot, who hadn't read the instructions revealing that you needed to press F7 in order to open the hangar doors, probably spent forever flying their craft into the staff canteen instead. However, once airborne a *Zaxxon*-like isometric shoot-'em-up sequence led you to the missile silos. After a required number had been destroyed and the US saved from nuclear obliteration it was then onto Moscow for the final showdown.

After blasting your way into the Kremlin, the final stage was a *Discs Of Tron* clone, where you bounced projectiles off a wall into the backs of robots keeping the Kremlin's nuclear facility operational. Success would reward you with the on-screen detonation of the plant, which incidentally seemed to take out about half of the surrounding city. Such is the price of capitalism. *Raid Over Moscow* may well be a Cold War relic, but like all of the Carver's polished products it's still a fascinating game.



TIME TO IMPACT
AIRCRAFT



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SCORE



First Star Software

Despite bringing C64 hits *Boulder Dash* and *Spy vs Spy* to the world, First Star Software was almost extinguished in the early Nineties. Today, it's muscling its way back in, as Craig Grannell discovers

Two independent film producers running a fledgling videogames company have just turned down a quarter of a million dollars. This,

perhaps surprisingly, will prove in the long run to be a shrewd financial decision, and not, as it might seem on the face of it, a crazy one. 1982 is turning out to be quite a year for Richard Spitalny and Billy Blake.

Just a few months earlier, Billy discovered the manager of a computer retail store he co-owned was something of a genius. Fernando Herrera had won a \$25,000 prize from Atari for *My First Alphabet*, created to test his two-year-old son's vision after major cataract surgery. The prize's name? The Star Award. Something clicked; Richard and Billy, tired of lengthy movie production cycles and being at the mercy of studios, realised that in six months they could potentially go from a game concept to selling it

to consumers – and there were more distribution and production channels for videogames than movies.

Inspired by Fernando's award, the new company was named First Star Software (FSS hereafter). Richard and Billy subsequently, in Richard's words, "left Fernando to do whatever he felt like doing, while Billy and I provided him with the equipment he needed and a salary". The first game Fernando devised was *Astro Chase*, where you pilot a ship around a cordoned-off section of space that's littered with planets, blow up alien craft and try to stop deadly mines from reaching Earth. Although basic and somewhat frustrating to play today, Richard says it caught the eye of the largest single investor in Commodore: "He loved it, and we were immediately offered \$25,000 for the C64 rights. Since we were funding FSS and hadn't released the game, I said

INSTANT EXPERT

Prior to founding First Star Software, Richard Spitalny and Billy Blake were independent film producers. They liked the idea of working in the games industry because they'd no longer be at the mercy of major film studios.

The first game created by the company was *Astro Chase*, and the last game it created under a traditional development model was *Astro Chase 3D*, over a decade later.

On 28 October, Rockford officially turns 25 – that was the date in 1983 when First Star Software bought all rights to *Boulder Dash* from Peter Liepa. Since then, the game has appeared on almost every major videogaming platform.

When Warner bought half of First Star Software, the games company chose three properties to work on. Of these, *Spy vs Spy* and *Superman* both had three releases, but *Wonder Woman* never got further than being a logo on FSS stationery.

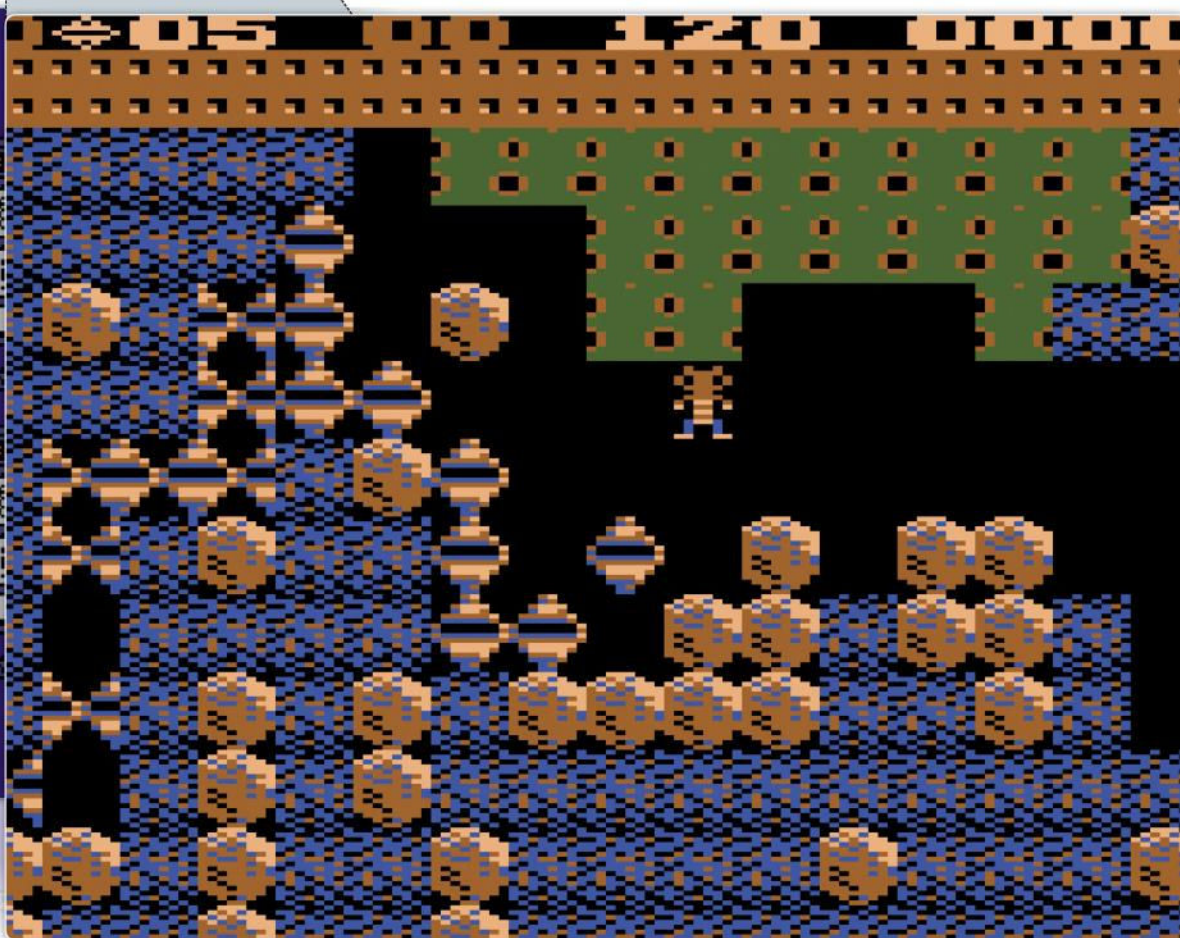
Today, First Star Software mostly makes *Boulder Dash* games for various platforms, and is becoming increasingly interested in download and mobile markets such as XBLA and Apple's App Store for the iPhone.

I needed to go back, speak to Fernando and think about it." Told it was a 'take it or leave it' offer, Richard decided to leave it, and as he headed towards the elevators, the offer suddenly multiplied by ten, which is roughly where we came in.

After protracted negotiations, FSS decided against the deal. *Astro Chase* was self-published and sold 40,000 units, with specific rights sold on to Parker Brothers for \$250,000. For the tiny newcomer publisher, this was a major turning point, because it meant Richard and Billy were no longer funding FSS out of their own pockets.

During the following year, FSS began cranking out products for various platforms. *Panic Button*, a game where you assemble products on a multi-level manufacturing line, was designed as a test for a young programmer. Richard recalls: "He'd moved to the USA and was still in school. I gave him the idea for the game, which is based on an *I Love Lucy* routine where Lucy and Ethel are trying to keep up with chocolate candies on a conveyor belt. Since the programmer had a TRS-80 at the time, the game was only initially released for that platform."

Next, the *Q*bert*-like *BOING!* became FSS's sole Atari 2600 release. "It was created by a husband and wife team, and was going to come out under a publishing



agreement with Atari, but never did," recalls Richard. "We were working on a version called *Jump*, to tie in with the Van Halen song, but that never happened." Richard says the game was ready for release before *Q*bert* arrived, but various delays meant it didn't appear until 1983. Luckily, no such delays affected Herrera's second FSS title, *Bristles*, a kind of cross between *Elevator Action* and *Pac-Man*.

Monkeying around

The next FSS title initiated a long-standing working relationship with Jim Nangano. *Flip And Flop* somewhat resembles *Q*bert* crossed with Atari's *Road Runner* coin-op and has Flip the kangaroo jumping around isometric platforms to reach marked tiles, while avoiding a zookeeper. When he's done, the viewpoint flips and the level is traversed again by Flop the monkey. Richard recalls Jim was "very talented and a key person at FSS for years," and that *Flip And Flop* was submitted while Jim was in the military: "He worked in a secret facility, tracking the world's nuclear submarines. One time, he asked me to please stop stamping 'CONFIDENTIAL' in red on the disks we were exchanging, because every

time he'd enter or leave the military facility, everything he carried was inspected, and it took a long time to prove the disks didn't contain military secrets!"

By this point, FSS had a solid collection of titles, but 28 October 1983 was the date that changed the fate of the company forever: it was the day FSS purchased all rights to *Boulder Dash* from Peter Liepa. "The game was submitted to us before it was completed, and although the graphics weren't great, the gameplay

and butter, and has stood the test of time remarkably well.

"It's easy to learn but tricky to master, which ensures it appeals to a large cross-section of people, and you can return to caves to try different solutions, collect more diamonds and beat your scores," says Richard. He also remembers Peter being a reliable, solid developer: "He never worked for FSS. He was an independent developer doing everything on his own. He designed the games, wrote the code, created his own graphics and music. And while Peter did not 'contribute', if you will, to the company itself, *Boulder Dash* has certainly been a huge part of FSS for the past 25 years; even today, it's our cornerstone."

Continually thinking of ways to expand FSS, two major deals were sealed by the company in the mid-Eighties. The first would prove be short-lived: the coin-op rights to various FSS properties were sold to Exidy, resulting in some rather odd arcade games that were based on modified Atari consoles. More important was the sale of 50 per cent of FSS to Warner, the thinking being that FSS would have access to the American giant's channels, expertise and IP, along

“ Boulder Dash is easy to learn, so it appeals to a large cross-section of people ”

RICHARD SPITALNY, FIRST STAR SOFTWARE CO-FOUNDER

was excellent," remembers Richard, who was taken in by the "mix of 'mental gymnastics' needed to figure out the solutions, in combination with the need for quick reflexes and precise movements."

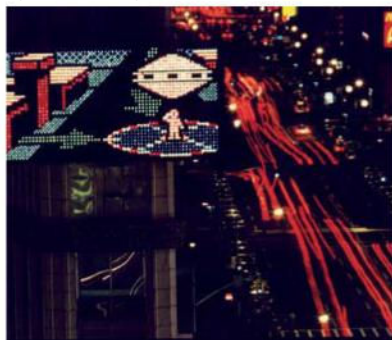
Richard recalls all *Boulder Dash*'s gameplay and cave designs came from Peter, with some initial help from Chris Gray, and FSS merely asked for subtle changes, such as the single-screen bonus caves and varied colour palettes. The game subsequently became FSS's bread

BY THE NUMBERS

- 3** The number of *Superman* games First Star Software created.
- 4** The number of official *Boulder Dash* arcade games created to date.
- 27** The number of years that First Star Software has been in business.
- 50** The percentage of First Star Software that was, for a time, owned by Warner.
- 25,000** Fernando Herrera's Star Award prize money from Atari in dollars for *My First Alphabet*, which inspired First Star Software's name.
- 250,000** How much First Star got for licensing *Astro Chase* to Parker Brothers, ensuring an easier financial ride... for a time.
- 1,300,000** The sum in dollars a company paid to First Star Software to license rights to *Boulder Dash* and a then-unreleased sequel. The company defaulted after making a hefty initial payment and the rights reverted to FSS.

FROM THE ARCHIVES

The flying saucer from *Astro Chase* 'up in lights' at Times Square, New York City, on New Year's Eve 1982.



[Commodore 64] *My First Alphabet* not only netted its creator \$25,000, but inspired First Star's formation.



[Commodore 64] *Boulder Dash* was a huge success for First Star Software. This is *Boulder Dash II: Rockford's Revenge*.

with a large chunk of operating cash.

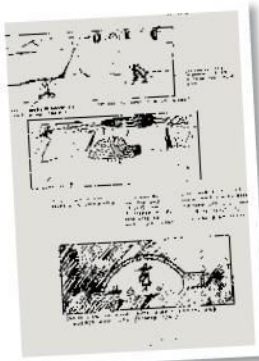
For a company that, until this time, had concentrated solely on creating original videogames, the shift towards licenses might seem mercenary in nature, but Richard reckons it was merely an obvious direction for FSS to go in: "It's no secret that well-known brands help products stand out from the competition. If you've a good game, people would rather play one that stars characters they know, and often there are back stories or unique features and powers characters possess that can make for an even richer experience."

Spy game

Of the three properties FSS decided to focus on – *Spy vs Spy*, *Superman* and *Wonder Woman* – the two battling cartoon spies from *Mad* magazine surprisingly gave rise to the best-known FSS brand after *Boulder Dash*. "I was very involved with *Spy vs Spy*, and came up with Simulvision, Simulplay and the Trapulator," says

“It's no secret that well-known brands help products stand out from the competition”

RICHARD SPITALNY



Design documents from the third *Spy vs Spy* game, *Arctic Antics*.

Richard. "I made it a requirement of the game that players not have to take turns, and I'd picked *Spy vs Spy* from the Warner properties because I felt, if done right, the 'payoff at the very end' that's in the comic strip could be brought into an interactive game. But, to do that, you couldn't be sitting watching what the other spy was doing – you had to find a way for both players to be active at the same time."

The split-screen dynamic was unusual for the time, but Mike Riedel ably coded the game, enabling each player or a player and computer-controlled spy to act independently, plant traps, and search for

game-winning components. The same core gameplay was used with relatively few changes in two 8-bit sequels, and millions of units were sold across the three games in the series, enabling FSS to increase its internal development resources. Most importantly, says Richard, "the tremendous success with *Spy vs Spy* served to add to our credibility. We weren't a 'one-trick pony'."

Sadly, the Warner deal didn't bear further fruit. A *Wonder Woman* game never saw the light of day, and although there were three attempts at a *Superman* game, none of them are memorable for the right reasons. The disastrous C64 effort from 1985 is the worst: a nasty *Pac-Man* clone with dull mini-games, which Richard puts down to the team being over-extended with too many titles in development, along with perhaps too much ambition: "The game was released with design ideas not fully implemented and some interface and control issues that

WHERE ARE THEY NOW?

Richard Spitalny

Co-founder of First Star Software, Richard briefly became involved with digital studio Imergy in the Nineties, working on various interactive titles. However, he returned to what he "knows and does best", and today again runs the company he started.

Billy Blake

Despite co-founding First Star Software, by 1985 Billy had returned to his original loves: movies and photography. He

worked on *The Night The Lights Went Out In Georgia*, *Rhinestone*, *The Hunter's Moon* and *Pumpkinhead*, among others. Billy's photography is also regularly exhibited. He's shown at Image Gallery, New York; Universal Gallery, California; The Los Angeles Art Show at the 825 Gallery; the National Juried Photography Exhibition 2007; and the Long Island Museum of American Art.

Fernando Herrera

Creator of *Astro Chase* and the inspiration for First Star's name,

Fernando Herrera's credits dry up in the late Eighties, and we couldn't trace him.

Jim Nangano

Jim continued programming videogames into the Nineties, including MicroLeague sports titles. His current whereabouts are unknown.

Peter Liepa

After abruptly quitting the games industry due to its "boom and bust nature, the scarcity of good platforms after the Atari 800 and the lack of a local industry," *Boulder Dash*'s creator

became seduced by the 3D computer graphics industry. Peter went on to spend 15 years at Alias/Autodesk, and his work led to nine patents. He currently works with Digital Arts, Inc.

Mike Riedel

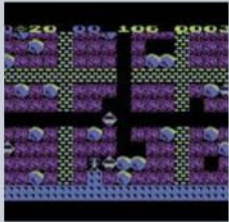
After his work with FSS, Mike continued in the games industry and has credits on titles from Hi-Tech Expressions, Ripcord and Running With Scissors, the most famous of which are the *Postal* games, for which Mike was a producer. Since 2004, Mike's moved towards engineering.



□ SIX OF THE BEST

Boulder Dash [1984]

Although some modern takes on *Boulder Dash* are great, with excellent cave design, Peter Liepa's original remains a standout creation. Its 16 caves, each with five variations, provide plenty of challenge, and the game's so good that it's no wonder ports still thrive on modern platforms. The Atari 8-bit release is still best, though.



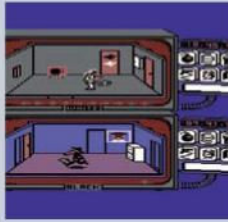
Flip And Flop [1984]

Jim Nangano's oddball collect-'em-up plays like a mix of *Q*bert* and Atari's *Road Runner*. Levels switch between a hopping Flip (a kangaroo) and hanging Flop (a monkey), tasking you with touching marked tiles and avoiding an angry zookeeper. *Clown-O-Mania* on the Amiga borrowed the concept but wasn't nearly as good.



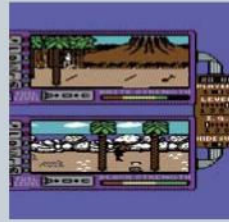
Spy vs Spy [1984]

The original *Spy vs Spy* game is a fantastic example of a split-screen approach, enabling players to play simultaneously. You can set traps for your opponent, but must be watchful of what they're up to. Plenty of humour is evident throughout and, unlike most games based on comics, *Spy vs Spy* lives up to its source material.



Spy vs Spy II: The Island Caper [1985]

Although this sequel has the same core gameplay as its predecessor, there's enough innovation to warrant its inclusion in the best-of list. The graphics are prettier, and the desert island location provides plenty of new traps, including petrol bombs, snares and pits. It's also possible to swim between islands, through shark-infested water.



Boulder Dash EX [2002]

Although playing rather differently to *Boulder Dash* – *EX* is slower and far more complex – this is a great re-imagining of the 8-bit classic. With more emphasis on puzzles and power-ups, *EX* is taxing and challenging, and although Rockford has been replaced by a manga reject, the game's positive qualities make up for it.



Boulder Dash XMAS 2002 Edition (2002)

Astro Chase or *Security Alert* might have got the nod if it wasn't for this festive-themed *Boulder Dash* effort. The graphics are slightly iffy, but there's no doubting the brilliant design of this game. Its cave designs rival Liepa's originals, and the map structure means that you can bypass stages you can't solve.



negatively impacted gameplay. Also, we tried to include too much in the game, so there were lots of 'ideas' and 'things' but none were done very well."

Sequels to *Spy vs Spy* and *Boulder Dash* kept FSS going well into the Eighties, however. The former series wowed reviewers with *The Island Caper*, stranding the adversaries on a desert island surrounded by shark-infested waters. "We knew that Simulvision, Simulplay and the Trapulator were all well received by players, and so it seemed only logical to build on the success of the first game in the series and to reuse the underlying engine, which would mean we could come to market sooner than with another all-new game or approach," says Richard.

As with *Spy vs Spy*, *Boulder Dash* had several sequels in relatively quick succession. Richard notes that "once you've found something that 'works', the key is to keep adding to the brand, to the experience". Arguably, it took three attempts before *Boulder Dash* fully managed this. First, *Rockford's Revenge*

□ THE MYSTERY OF BOULDER DASH III

After *Boulder Dash* and *Rockford's Revenge* came *Boulder Dash III*, a markedly different game that disappointed many with its garish, confusing, bas-relief graphics and poorly conceived cave layouts. (It nonetheless sizzled in *Zzap!64*, suggesting that the reviewers had scoffed a few too many Jelly Babies that day.)

It takes an emailed screen grab for Richard to remember *Boulder Dash III* – he initially confuses the game with *Boulder Dash Construction Kit* – whereupon he reveals why it feels like the odd one out in the original 8-bit series: it's a clone, albeit an 'official' one.

"It was created by a licensee in Sweden: American Action AB. It was an official release, since we were paid for it and approved it, but it was not designed by Peter Liepa nor First Star Software," explains Richard. "As I recall, they came to us with a finished 'clone' and we worked something out to make it official. Proper credits and legal notices were included, and we received an advance against royalties and a continued revenue share, such that the title could come out in the mutually agreed territories. However, First Star itself never published the game."



provided gamers with a new set of Liepa-designed caves, but little else, and then a bizarre sequel with bas-relief graphics (see: 'The mystery of *Boulder Dash III*') did little more than make people impatient for what they really wanted: the ability to fashion their own caves.

Richard says he recalls designing and building *Boulder Dash Construction Kit* very well: "It was something we'd wanted to do, but at the 'right time', which for us was after *Rockford's Revenge*. We felt that by then there were enough fans who really understood the game inside and out and that they'd enjoy creating and sharing their own caves."

Lots of time was spent making the kit as intuitive and easy to use as possible, and it was released to rave reviews. Of course, it also put paid to any subsequent home *Boulder Dash* games – bar disappointing conversions of *Rockford*, by then the third *Boulder Dash* flirtation with the arcades – and with the third *Spy vs Spy* game being a letdown, FSS's blazing light was for the first time starting to dim.

The road to nowhere

The last few years of the Eighties were a turbulent time for First Star Software, which had previously enjoyed almost constant success. Things began to unravel starting with the ambitious *Omnicon Conspiracy*, a science-fiction graphical adventure game for 16-bit platforms, somewhat along the same lines as familiar LucasArts productions. Around the same time, FSS worked on two other original titles: one-on-one fighting game *Millenium Warriors* and the noteworthy, innovative *Security Alert*, which has you breaking into various establishments, using both side-on and overhead

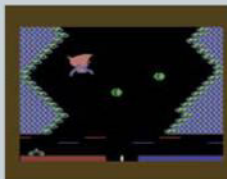


viewpoints to defeat security systems and grab your prize.

"All three of these games included groundbreaking elements, both in terms of unique gameplay and story, but unfortunately they were created as we were leaving publishing, in an attempt to focus solely on development," says Richard. "The problem ended up being that both Epyx – for *Omnicon Conspiracy* – and Intracorp – for *Security Alert* – were themselves, struggling as publishers." The original agreement with Epyx was to deliver *Omnicon Conspiracy*, *Spy vs Spy: Arctic Antics* and *Boulder Dash Construction Kit* across numerous platforms, which FSS had never done before for a publisher – the company had previously self-published or licensed platform rights to a third-party that handled the ports. "As it turned out, due to the inevitable submission-review-revise-resubmit-review and approval process between developer and publisher, in this particular case due to shortcomings at both FSS and Epyx, we pretty much got eaten up alive," recalls Richard, sadly.

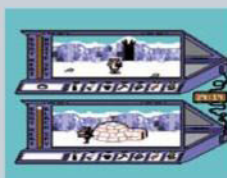


□ THREE TO AVOID



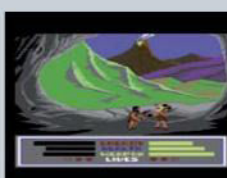
Superman [1985]

Plenty of ambition doesn't necessarily make for a great game, as this first crack at *Superman* proves. A quick read of the manual suggests there's plenty to do, but when you load the game, you find a collection of dull mini-games with unresponsive controls, sparse sound effects and uninspiring graphics. Tynesoft's later attempt is better, although still no classic.



Spy vs Spy III: Arctic Antics [1986]

The previous two *Spy* games are still great fun, but even in 1986 *Arctic Antics* proved a game too far. The third *Spy vs Spy* instalment lacks the visual appeal of *The Island Capers*, and its gameplay seems less finely tuned. It's not a disaster, but there's little point playing it over its predecessors.



Millenium Warriors [1989]

More a missed opportunity than the worst game in the world, *Millenium Warriors* has a decent idea behind it, tasking you with one-on-one battles in various eras. Caveman brawls, pirate swordfights and futuristic laser-gun fights look nice, but one-on-one fighting games live or die by their controls; *Millenium Warriors* sadly proves awkward, and therefore isn't much fun.



Such was his popularity, Rockford appeared in issues of Zzap!64.

"By that I mean the time and money we expended in developing all of these SKUs was much more than we earned from royalties, advances and sales combined."

In a relatively short space of time, FSS went from a solid, profitable company to one that barely existed. The sales department had previously been closed, as FSS segued from development and publishing to development-only, but now the development department closed its doors as well, with the exception of Fernando Herrera, who completed *Security Alert* for the C64 on his own.

Just one more game arrived from FSS under a traditional development model – a reworked, technically groundbreaking take on its very first release. "*Millenium Warriors* for C64 wasn't released until it was included as part of *First Star Software's Greatest Hits*, but it was the first project we worked on with Ofer Alon, and he went on to co-create the Software Accelerated Graphics Engine (SAGE), which served as the engine for *Astro Chase 3D* on the Mac," says Richard.

“I made it a requirement of *Spy vs Spy* that players not have to take turns”

RICHARD SPITALNY

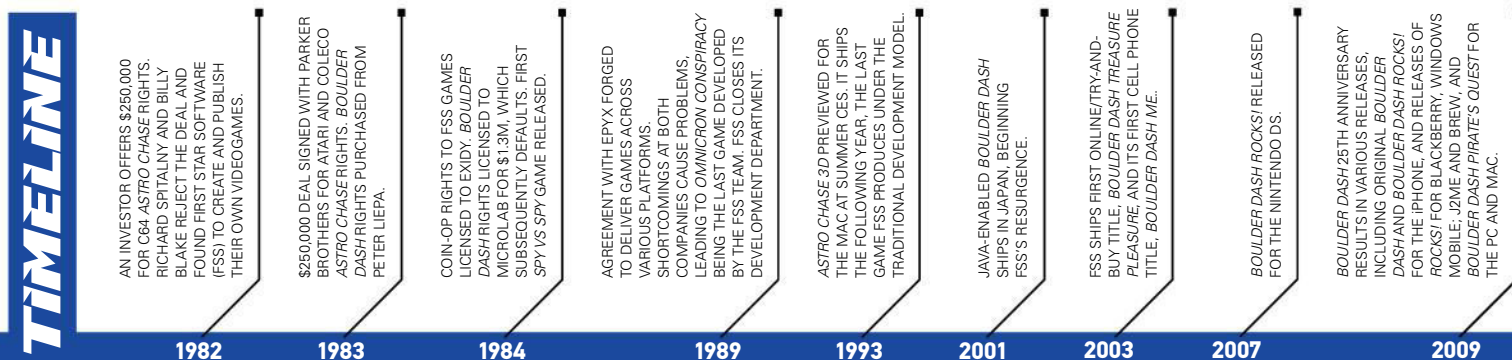
Chances are, few people reading this article will be aware that *Astro Chase* had a sequel, but in its target market,

Astro Chase 3D reviewed just as well as its forebear. The game takes the original's core gameplay and turns it into a fast-paced 3D shooter.

The unique rendering engine wowed Mac users at the time – some noting how, while ageing systems played the likes of *Doom II* in a box-like window, *Astro Chase 3D* happily ran flawlessly at twice the screen resolution – and the mouse-based control

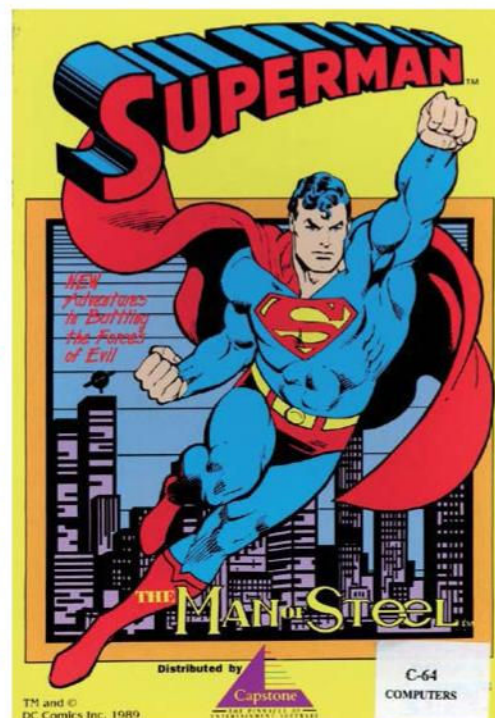
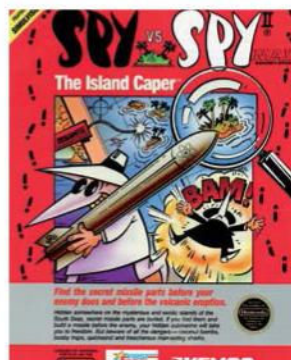
system proved fluid and intuitive. Despite this sole very successful release and a plethora of positive reviews, along with the underlying SAGE engine working brilliantly well, further games didn't appear. "We unfortunately were not able to come to terms internally with Ofer as how best to exploit the engine," says Richard. "We had lots of significant interest from some very large companies, but they were only interested if we would port SAGE to the PC and Ofer felt strongly that we should stay with the Mac. Ultimately we ended that partnership."

For a while, it seemed like FSS's doors would have to remain forever shut. Although Billy Blake had departed, Richard had stuck with the company, but by 1995 even he'd had enough: "There was a period where I got involved with another company – a digital studio, as they were called in the 'dotcom' days. I personally needed to recharge my batteries – they'd been badly drained by the time, money and effort invested in SAGE, ultimately, all for naught."

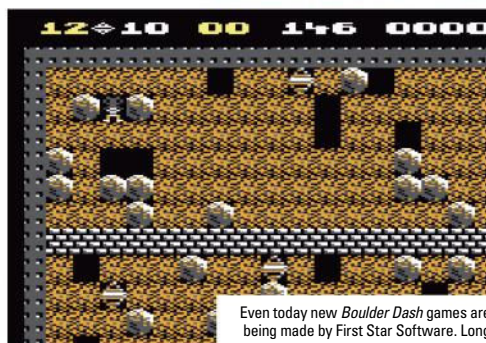




The original *Spy Vs Spy* was very popular, and a fun adaptation of the hit comic strip.



Towards the end of the Eighties, First Star Software returned to original properties, such as *Security Alert*.



Even today new *Boulder Dash* games are being made by First Star Software. Long live Rockford bless him.

During this time, Richard was minority owner and senior/executive VP product development for Imergy, a company that did several *Star Trek* interactive titles for Simon & Schuster, such as *Star Trek Omnipedia*, *Star Trek: The Next Generation Interactive Technical Manual*, and *Star Trek: Captain's Chair*, along with an interactive CD-ROM based on *The Joy Of Cooking*, and various extranet sites for companies such as GE and Clairol.

But gaming was in Richard's blood, and it wasn't long before he was drawn back into the industry.

The comeback kid

After almost a decade of laying dormant, FSS sparked back to life. The re-emergence was driven by long-standing Japanese partner Kemco wanting to develop the original *Boulder Dash* for phones in Japan. When this proved successful, the more ambitious *Boulder Dash EX* was created for the Game Boy Advance, offering extended gameplay, including a multiplayer battle mode and the ability to rotate the screen. "Although the game didn't do as well as it could have, *Boulder Dash EX* convinced me *Boulder Dash* could be updated while remaining true to the game's core principles and appeal," says Richard.

Although new *Boulder Dash* features are divisive, Richard thinks they work nicely if you approach the games with an open mind; he cites slower boulder drops and a 'Zen' mode that removes the timer, enabling players to amble about caves at leisure to figure out solutions. And with this new *Boulder Dash* arsenal, there's been no stopping a reinvigorated FSS. Since 2002, we've seen numerous games based around the property, including the

impressive *XMAS 2002* edition for the PC and the pretty *Boulder Dash Rocks!* for various handheld systems.

Major changes to FSS's most famous property have been echoed in the company itself. These days, it only develops games with full development partners. "We do not pay royalty advances. All development is handled and financed by the developer," explains Richard. "We provide the IP, game design documents and a [producer] for the project. The developer is responsible for code, art, music, QA, and so on. We then arrange for distribution or co-publish with a strong partner for a given platform, and we share royalties on a 50/50 basis."

For FSS, this streamlined approach provides the opportunity to compete on a level playing field with industry giants. Online try-and-buy, Flash games via DotEmu's EasyRetro portal – currently *Boulder Dash: Arcade*, but soon also *Astro Chase*, *Bristles* and *Flip And Flop* – and download networks and mobile platforms have proved fruitful for FSS, reducing

THE CHANGING FACE OF BOULDER DASH

From cave-mite to miner to strange cat-like thing, the appearance of *Boulder Dash*'s protagonist has changed more often than Madonna's – surprising for First Star's 'mascot'. "We love the original Rockford," affirms Richard, "but over the past 25 years, it seemed like a good idea to have him evolve as technology improved and expectations for in-game graphics increased. Also, with *Boulder Dash* appealing to female players, we introduced Crystal – Rockford's sister – which appears successful when noting the number of Crystal 'avatars' for *Treasure Pleasure* and *Pirate's Quest* online high-score tables."



inventory risks, marketing expenses and time to market. The original *Boulder Dash* is on Virtual Console, and Richard is aiming to see Rockford infiltrate XBLA, DSiWare and PSP Go. This reliance on digital distribution also, perhaps inevitably, resulted in games for the iPhone, with the original *Boulder Dash* and a tweaked *Boulder Dash Rocks!* on the App Store.

Despite all this new technology, Richard remains very aware that his company began in 1982 and now spends an awful lot of time reworking a 25-year-old game. "But I find the increased interest in retro gaming very interesting," he says. "I think it says something about the fact that while we enjoy 3D graphics, extreme realism and huge, alternate worlds, we still crave games that are easy to get into and that can be played in short sessions."

We ask how hard it is to snare new gamers with old properties, without annoying those who loved them when they first appeared. "That's an interesting question, and we had our heads handed to us by our most die-hard fans when we previewed *Boulder Dash* for iPod," laughs Richard. "Our intention was to release the game with its original caves but updated graphics. Well, let me tell you, when those screenshots came out, the forums lit up, letting us know, in no uncertain terms, that this would not stand!" In the end, a retro mode eventually became the default.

Much of FSS's future depends on the success of its Flash and iPod games, along with upcoming productions for XBLA. But Richard says FSS's prospects aren't entirely reliant on the past: "We do have one or two new game ideas that we're playing with, which, if they come to fruition, will be the first all-new games from us in many, many years!"

64 The Collector's Guide



 **COMMO**

Commodore's 8-bit computer is more popular than ever and highly collectible. The following guide reveals the best it has to offer



» Manufacturer: Commodore » Model: Commodore 64 » Launched: 1982 » Country of Origin: USA

COMMODORE 64

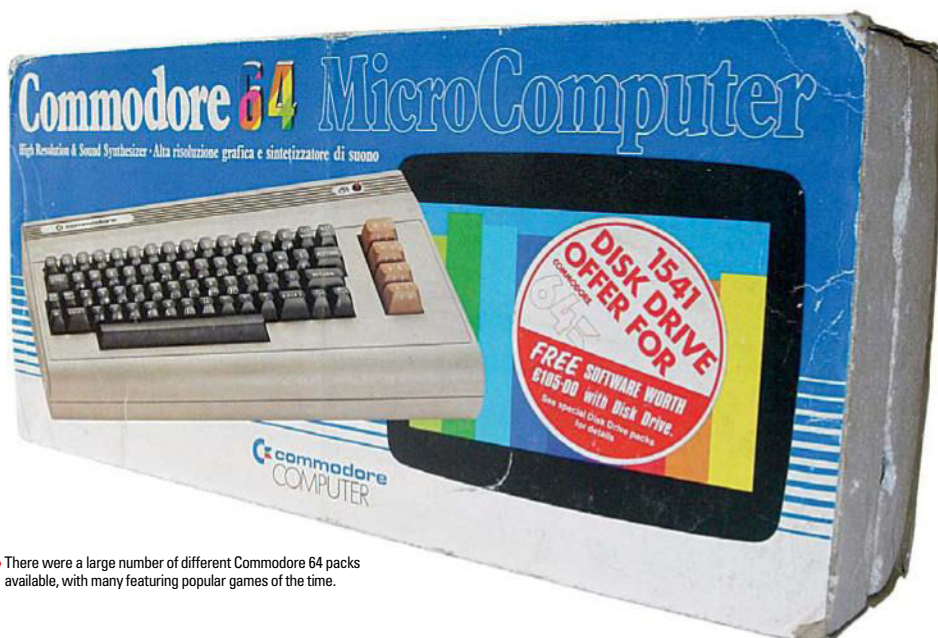
64 The Collector's Guide



» Commodore obviously liked the aesthetics of the Amiga as it eventually placed the C64 in a similar casing.



» There were plenty of magazines available for C64 owners to choose from, including *Zzap!64*, *Commodore Format* and *Commodore User*.



» There were a large number of different Commodore 64 packs available, with many featuring popular games of the time.

WHY IT'S COLLECTABLE

The first thing to realise when considering collecting for the Commodore 64 is that it isn't like *Pokémon*; you most certainly cannot catch them all. With an estimated 10,000 or more commercial titles released over the years, it adds up to a hell of a lot of games to track down. When taking that into consideration, along with accurate emulation via Vice and CCS, and the availability of devices such as the SD2IEC and 1541 Ultimate to play game images on real hardware, just why should people go to the trouble of collecting originals?

It is, admittedly, a very good question, and one with very good answers. First, there's the tangibility aspect to owning a set of cherished games; to be able to hold them in your hands, look at them and treasure them. Today, for so many people, a collection may amount to no more than an uncountable number of MP3s or video files stored upon a hard drive, whereas with a vinyl album or CD, a video tape or DVD, you tend to

value and appreciate it more because it's a physical object. This is no different when it comes to computer games or videogames. In contrast to today's fairly uniform publishing world, there were quite a number of titles during the 1980s that had standout packaging or utilised a particular eye-catching style, such as the Infocom adventures, Electronic Arts' gatefold album homages or Broderbund's curiously hexagon-shaped box for *Centauri Alliance*.

The other main argument to this point is that there were a lot of complex games released for the C64, straddling genres as diverse as RPG, strategy, adventure and tech-heavy simulations. Each game's packaging – especially their manuals – were a vital component of the experience, and without them you would often be left swimming in the dark, not knowing what to do. Sure, they may be scanned and made available for reference, but it isn't quite the same as flicking through a thick paper-based book or glancing over large-sized printed maps, and they would more often than not be used for the copy protection look-

ups. Games such as *Wasteland* even went as far as including false entries in the associated booklets to confuse possible cheaters!

Not everyone has the same reasons for collecting, and quite often they overlap. Many collectors tend to focus on particular genres, certain companies, or merely games they recall playing when they were younger. Needless to say, this proves to be a fairly popular approach, especially given the aforementioned perceived impossibility of obtaining everything ever released. The timeline of the C64 means that many of the kids who were battling alien invaders or conquering foreign lands now have children of their own, and for some it's a way to introduce what they loved to a new generation.

Some people just like to collect in general. Others will often focus on rare and hard to find titles in order to digitally preserve for distribution online. Myself? Well, I can honestly say all three of those apply and more, although I'm lacking in the children department currently. Sometimes there's nothing like the thrill of



► Electronic Arts' gatefold covers not only set them apart from other publishers, but also made them very collectible.

DID YOU KNOW?

■ The C64 went through five revisions and two different case designs, with the most publicised difference being the output of the SID (sound) chip. Revision A machines are unreliable, but worth more; the C128 was Commodore's attempt to push its tech further, but is compatible in 64 mode with 99.9 per cent of software; the Commodore GS and Japanese MAX can really only play cartridges. Finally, the SX64 was the 'portable' playing option with a built-in disk drive and monitor.

► One of the great things about collecting for the Commodore 64 is the sheer variety of box designs that are available.



the chase, or suddenly discovering a game you never knew about before and enjoying it. Games are still written for the C64 even today, the format thriving well after Commodore's bankruptcy, and although many are made available for free, some are published (by the likes of Cronosoft and Psytronik) for money, and in many cases, the entry fee is well worth paying, such as with *Newcomer* or *Knight 'n' Grail*.

Regardless of all the arguments, there will always be some people resolutely stuck to collecting only through digital means; if anything, it's a great way to try before buying if you're serious about collecting games you also want to enjoy playing. So, if you are still here, and still keen on acquiring C64 games, then where should you begin? The answer to that really lies in which genres you enjoy, because there is nothing that the C64 doesn't hold in spades, and a lot of the time collecting for the format will not set you back much money in the process.

The most noticeable dichotomy, however, was that most of the resource hogs such as simulations,

RPGs and strategy titles came from the US, where owning a disk drive was a way of life, and most of the great arcade-orientated titles and quirky concepts came from Europe. Hence compared to Spectrum and Amstrad owners, C64 users literally gained the best of both worlds. Adventures, as it turned out, were split down the middle. On one hand there was the genius nature of much of Infocom's output, balanced against the tight, compelling works of Level 9 (*Gnome Ranger* and *Scapeghost*) and Magnetic Scrolls (*The Pawn* and *Guild Of Thieves*). Whichever way you saw it, there wasn't much on any of the other 8-bit computers to match them, and the versions released were just as good as the corresponding 16-bit incarnations.

If adventures were not your thing, then there was bound to be something else. Fighting games? *IK+*, *Way Of The Exploding Fist* and *Barbarian*. Racers? *Pitstop 2*, *Turbo Charge* and *Revs*. Puzzlers? *Zenji*, *Sokoban* and *Pipemania*. Platformers? *Impossible Mission*, *Mayhem In Monsterland* and *Monty On The Run*. Shooters? *Armalyte*, *Turrican*, and *Wizball*.

RPGs? The *Bard's Tale* trilogy, *Ultima 4* and *Mars Saga*. Action adventure? *The Last Ninja*, *Project Firestart* and *Mercenary*. Strategy? *Laser Squad*, *Storm Across Europe* and *Germany 1985*. Simulation? *Gunship*, *Project Stealth Fighter* and *Silent Service*. Sports? *Microprose Soccer*, *TV Sports Football* and *Leaderboard*. Doesn't fit a genre? *The Sentinel*, *Citadel* and *Little Computer People*.

The relatively small amount of space here doesn't allow for a full dissection of the vast number of quality titles available, and there are many, many more for each genre listed above, collated in the list at the end of the article. The lack of regional lockout means buying games from abroad is relatively simple, and thankfully the majority of the best foreign titles were released in the UK, or the import versions work fine on PAL machines; **Retro Gamer** even has some handy advice over the page to help with this.

So what are you waiting for? Fire up the Commodore 64, turn on the disk drive and dive into a world of endless possibilities...

THE PERIPHERALS



THE DISK DRIVE

If there is one piece of hardware that you absolutely, positively need to play and collect C64 originals in this day and age, it's the Commodore's external disk drive. Most of the popular, collectable and in-demand titles were released on disk (thus avoiding the long loading times of tape), and there are plenty more that were unique to the format. Given that one will set you back around as little as £20 today – as opposed to the £150+ you would have to pay during the 1980s – then there's really no excuse either.

The original 1541 model can be discounted because of its bulky nature, weight and temperamental drive latch mechanism. The 1571 model is excellent, but you cannot take advantage of the extra features unless you have a C128 or are running disks created using a 1571. This leaves two main options on the table. Commodore's own 1541-II is solid, reliable, easy to open and clean, and does what it says on the tin. In

the other corner resides the Excelsator+ produced by Evesham Micros, a clone drive that was every bit as good as the official thing, and perhaps even better in some respects.

Due to Commodore's insistence on sticking with a serial communication system, the speed of an ordinary disk drive is not that fast. Thankfully a few enterprising companies released kernel replacements such as Dolphin DOS, or cartridge-based fast loaders such as the Epyx Fastload, Cinemaware Warpspeed, and those present on Datel's Action Replay. Most original games published after 1984 came with a fast loader as standard, but for using with your own disks – or indeed any game without one – these options certainly take the strain out of waiting.

Speaking of fast loaders, a cautionary word should be given if you are looking to import disk-based Commodore 64 games. Thankfully, all bar one of the major C64 markets you are likely to buy from use PAL, with the exception obviously being the US. While there are no regional lockouts, there may be some

issues when loading American games on a UK C64, but this isn't specifically because of the difference in television standards. In actual fact, the speed and timing of the disk drive is directly controlled by the C64 itself, and an NTSC machine runs at just over 1MHz whereas a PAL one runs at just under 1MHz, hence any copy protection or fast loader requiring extremely precise timing during the boot process will fail if run on the 'opposite' machine.

Caveat emptor, and all that; it certainly pays to do your research, especially if you also want to play the games in question once you've had them shipped over from the US. Strategy, RPG and simulation games from the likes of Origin andSSI are almost certainly compatible in the UK, along with releases by Synapse and Broderbund. Activision games are more than likely to work, but games from Electronic Arts, Epyx and Interplay tend to be around 50/50 on their chances. Furthermore, anything from Accolade is pretty much right out. If in doubt, ask for advice online at places such as Lemon64.

...AND THE REST

01. Action Replay cartridge

■ An Action Replay cartridge was an essential component of any C64 setup. With a wide range of features such as freezing and dumping memory to disk, hunting for cheat codes, copying files or merely acting as a disk fast loader, there was something for everyone. The last entry in the series, number six, is the best one to go for.

02. Expert cartridge

■ In contrast, the Expert cartridge was more for the serious enthusiast instead. It could act as a freezer and disk copier like the Action Replay, but also had an in-built machine code monitor and file converter. While publicly attacked as a copy device, many programmers such as John Twiddy openly admitted to using the cartridge to assist them when working.

03. Protovision four-player adapter

■ The Protovision four-player adapter is one example of a user port-based extension to enable another two joysticks to be connected to the C64. Although mostly supported by newer software such as *Bombmania*, it can also be used with adapted older games, such as the beautiful *IK+ Gold* release that allows for three human players.

04. Magic Voice

■ The Magic Voice was a bold but failed attempt to add hardware-supported speech to games. It's only utilised by Commodore's conversions of *Wizard Of Wor* and *Gorf*, and is required to run *A Bee Cs*. Three games may not sound much, but it certainly adds something while playing the arcade titles.

05. Cartridge expansion board

■ Sometimes a C64 owner would have just too many useful cartridges, and an expansion board would be the ideal way to save wear and tear on the cartridge slot of the computer. Each slot has a switch beside it allowing them to be toggled on and off for booting on power-up.

06. TIB 3.5" drive

■ The TIB 3.5" drive was a failed attempt to give the smaller floppy media more market penetration. Despite the incredibly fast loading speeds due to the drive being connected through the cartridge port, users and publishers were reluctant to break from the 5.25" floppy format, and it was essentially dead at launch.

07. Datel Sound Sampler

■ The Datel Sound Sampler was a cheap, fun way to play with sound. Everything needed was included in the package, and once a sound was captured then echo, reverb or any manner of manipulation could be performed on it. Just a pity you couldn't save them out for later use.



TOP 5 GAMES TO PLAY

 The Sentinel

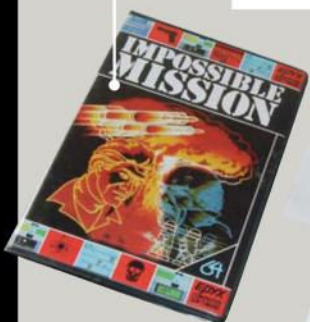
■ All powerful. All seeing. All absorbing. *The Sentinel* is arguably Geoff Crammond's finest moment, full of atmosphere, challenge and strategy across 10,000 levels.

 **Mayhem In Monsterland**

■ The last great game of the original era, *Mayhem In Monsterland* showed the consoles that a humble 8-bit computer could produce a platformer just as good as they could.

 **Impossible Mission**

■ 'Another visitor. Stay a while. Stay forever!' A fitting description of *Impossible Mission*, a perfect balance between risk and reward. If you fail, you only have yourself to blame...

 **Zak McKracken and the Alien Mindbenders**

■ Zak McKracken was the second, and arguably better game produced using the SCUMM engine for the C64, and saw all manner of strangeness in your quest to prevent aliens from reducing Earth's intelligence.

 **Last Ninja 2**

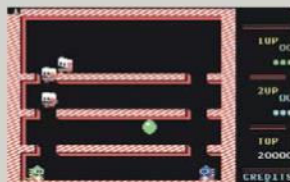
■ *Last Ninja 2* was the greatest of the trilogy, with the best music and graphics. You even got to pretend to be a real ninja if the mask and rubber shuriken weren't confiscated!



PLAY THESE NEXT

**IK+**

■ Archer Maclean's sequel was a massive breath of fresh air to the fighting genre, and all he really did was add a third fighter. Actually, there was a lot more to it than that, with dazzling animation and intricately designed backgrounds that were full of life. A superb fighter that every C64 owner needs to play.

**Bubble Bobble**

■ The Commodore 64 had plenty of cracking arcade conversions, but this version of Taito's classic from Ste Ruddy was easily one of the best. Great chunky visuals, a stomping rendition of the original theme tune and all the main levels made for a frightfully authentic experience that left Spectrum and CPC owners fuming.

**Paradroid**

■ Andrew Braybrook was a master at making the C64 sing, and *Paradroid* is arguably one of his greatest efforts. Endlessly playable and ridiculously slick, it's a clever blend of genres that sees you taking control of the titular Paradroid and taking on a ship filled with dangerous robots. A true classic.

**Project Firestart**

■ Released by Electronic Arts in 1989, this epic adventure title may have borrowed elements from popular sci-fi films such as *Alien*, but it was so polished it really didn't matter. Huge in scope and years ahead of its time, it remains one of the C64's best action adventure games and really shouldn't be missed.

**Armalyte**

■ If you wanted to play decent shoot-'em-ups on an 8-bit computer you really needed a C64. Beautifully paced and featuring some truly stunning boss design and music, *Armalyte* is easily one of the best shooters on Commodore's hardware, and a must-play, even if you're not a hardened fan of the genre.

TOP 5 IMPORT GAMES



Ultima I

While a little simplistic, the full package including maps and bag of coins is well worth hunting down. Prices have risen in the last couple of years though.

Avenger (MAX version)

■ The version released for the MAX computer in Japan. So much better than the obese invader attack that was released in the West, and quite a good conversion.

Castlevania

■ Konami NES games? On the C64?! You betcha. While not as good, it was certainly a cheaper way to play the game, and is guaranteed to make people double-take your shelves.

The Simpsons Arcade

■ This one surprises many people. Why Konami chose not to release it in Europe is a mystery. At the time it was a decent conversion, and still holds up fairly well today.

Oil Barons

■ If you're going to make a computer-assisted board game, then this is how to do it. Just look at it! The C64 kept track of all the facts and figures, leaving players to concentrate on strategy.

IMPORT THESE NEXT



Gyrruss

■ For some reason now lost to history, this stunning port of Konami's excellent shooter was never released in the UK, something which is rather a pity. We'd urge you to track it down if you can though, for while the sprites look a little rough, the tight controls and super slickness more than make up for it. A truly impressive port.



Lost Tomb

■ Based on the old Stern coin-op, this is another highly impressive conversion that many European gamers will have never experienced. Similar in style to *Tutankham*, it involves you nipping around the tightly designed levels and grabbing as much loot as possible. Yet another excellent port that few gamers got to actually play.



Diamond Mine

■ An undiscovered gem, if you'll excuse the pun. Guide the mine trolley through the maze of dirt in many mines, collecting the diamonds and then returning to the home station. Like *Flicky*, you are rewarded with more bonus points for an ever-increasing line behind you, but watch out for the monsters who can steal all your gems!



Whistler's Brother

■ This is a clever little game from Broderbund, and quite possibly one of the earliest examples of using whistling as a fully-fledged game mechanic. A simple platformer of sorts, *Whistler's Brother* requires you to use whistles to direct your bookish brother around the game's 16 levels. An ingenious idea, well executed.



Space Taxi

■ Ignore the rather basic visuals and lose yourself in a ridiculously addictive action game as you fly your taxi around the 24 deviously designed stages. Limited fuel, thrusters and working landing gear all have to be mastered in order to become the best of the best, but it's so hard to put down you may well manage it.

64 The Collector's Guide

TOP 5 RAREST PAL GAMES

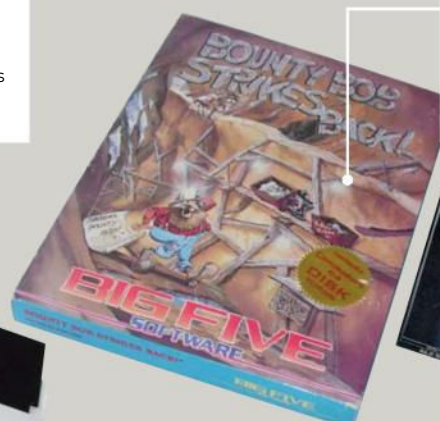
The Great Giana Sisters

■ Infamous even today, it isn't as hard to find as you may think. Nonetheless, obtaining a copy of this SMB clone, especially on disk, may still run you a pretty penny.



Bounty Bob Strikes Back (disk version)

■ The tape version is easy to find but both US and UK disk versions are like hen's teeth. The US version is also in demand from 5200 owners, as the box is identical.



Gauntlet 3

■ Reviewed and never released, yet some copies slipped out somewhere – probably US Gold's own software club. It's good too, making it more frustrating that it's so hard to find.



Double Dragon (cartridge)

■ Not the rubbish Melbourne House conversion but an almost-as-bad second attempt by Ocean, released on cartridge. Never sold in shops, and not many people know about it.



Wizard of Wor (original art)

■ It's not the game; it's the box. There are but a handful of examples known of this English language release in existence, and why it was changed to the more familiar purple-robed wizard version is unknown.



GET THESE NEXT



Katakis

■ Rainbow Arts was well known for squeezing every last drop of useable memory out of the C64, and *Katakis* was no exception. Heavily influenced by Irem's *R-Type*, it fell foul of Activision and was re-released after several modifications as *Denaris*. Needless to say, the original version is now pretty hard to find.



Moonfall

■ A late C64 title, released by the company that Hewson transformed into, it combines aspects of *Mercenary* and *Elite*, along with wire-frame graphics, to produce an interesting, challenging exploration and shooting experience. For whatever reason, it barely hit the shops and hence is one of those great but hard to find games.



Block Hopper

■ Just by the name you can guess which arcade classic this is a blatant clone of, and whoever was charged with designing the inlay cover left nothing to the imagination either. The annoying thing is that it plays a pretty good game of *Q*Bert*, but is so hideously rare that we're liable to have another Pope before you see a copy.



Congo Bongo (disk)

■ Ignore the tape-based version of Sega's isometric *Donkey Kong* clone and instead treat yourself to the disk version, which is a far superior offering, only let down by long loading times. Having said that, it's incredibly hard to track down, so expect to pay a pretty penny if and when you do finally manage to find it.



Satan's Hollow

■ Most of Commodore's arcade conversions were released on cartridge, but this one, oddly enough, only came out on disk. It's actually a pretty decent attempt to convert at the Bally/Midway original, which itself isn't that well known either. Evidently though, it couldn't have sold highly, and hence is fairly hard to find today.

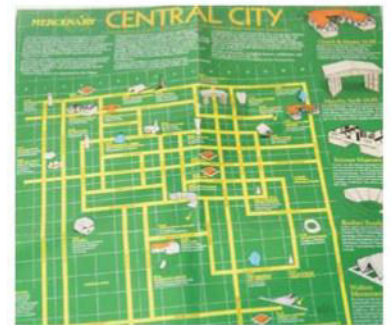
THE JEWEL IN THE CROWN

Big, brash boxsets were much more a Nineties console creation, but there are some snazzy-packaged C64 games out there. One such example is the Mercenary Compendium Edition...



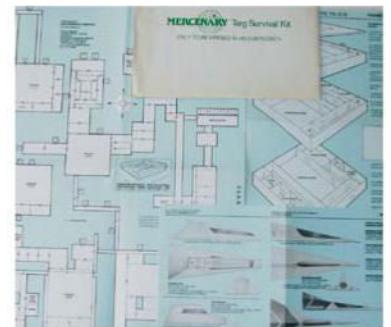
The Games

■ Inside, this special edition pack contains the original Commodore 64 version of *Mercenary* as well as the *Second City* expansion, along with a short novella that, if you read it closely, offers some hints about how to succeed in the game.



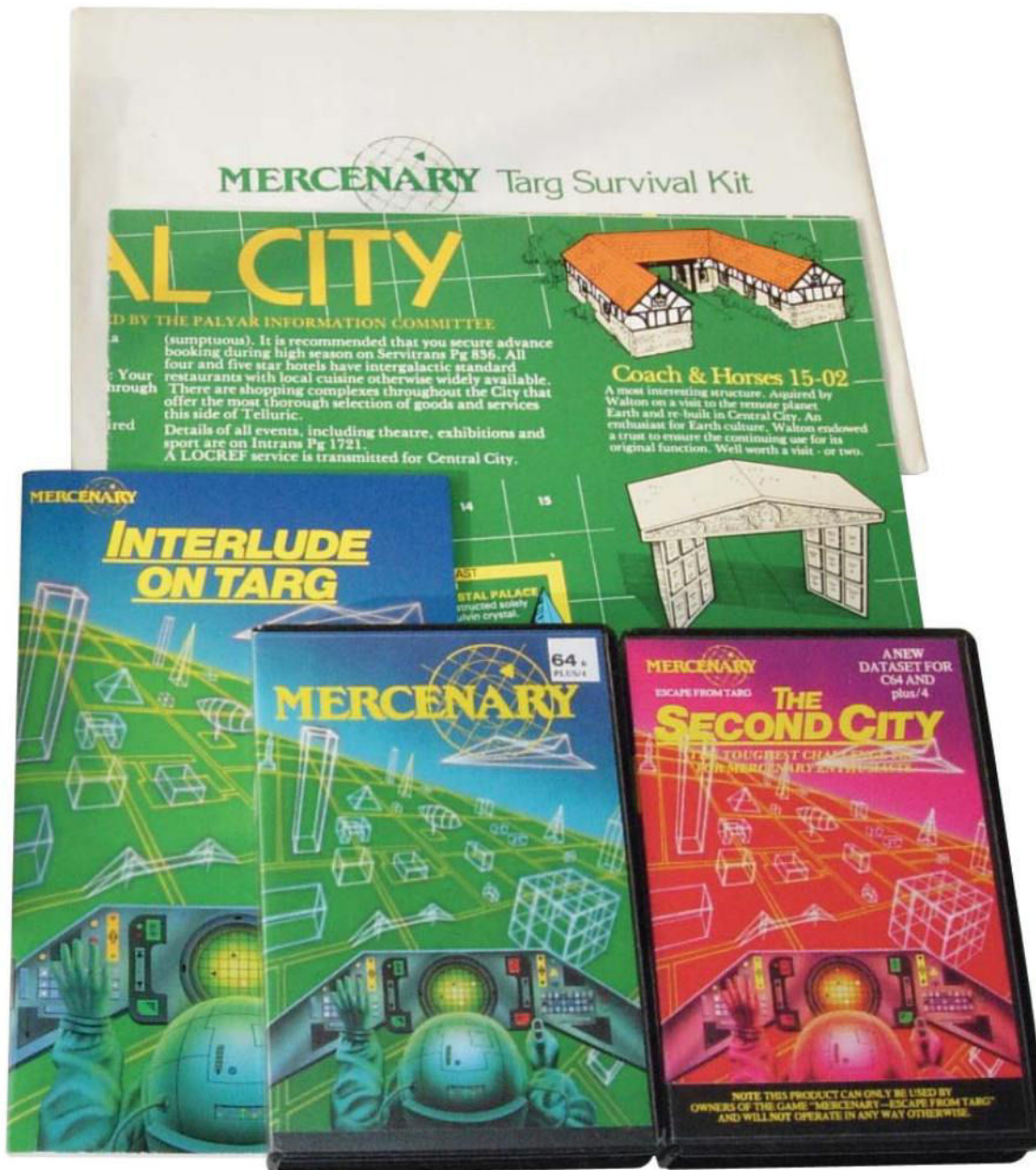
The Map

■ A large-scale map plots out the main attractions of Targ's main city, providing interesting details and facts not mentioned in the game, as well as one or two in-jokes. It's essential for planning a way to escape the planet with your pockets full of loot.



The Survival Kit

■ The Survival Kit is basically a set of blueprints, and has several useful layouts of the game's underground networks, including the location of the lift accesses. Aside from the one where the Winchester drive resides, of course...



✓ THE C64 GAMES YOU NEED TO OWN

Action Biker	☐
Alien 3	☐
Alien Syndrome	☐
Aliens (UK Version)	☐
Alter Ego	☐
American 3D Pool	☐
Ancipital	☐
Apollo 18	☐
Archon	☐
Arkanoid	☐
Armalyte	☐
Arnie	☐
Atomino	☐
Avenger	☒
Ballblazer	☐
Barbarian	☐
Bard's Tale, The	☐
Barry McGuigan's World Championship Boxing	☐
Batalyx	☐
Batman: The Caped Crusader	☐
Battle Chess	☐
Battle Command	☐
Battle Valley	☐
Beach Head	☐
Beach Head 2	☐
Below The Root	☐
Beyond The Forbidden Forest	☐
Bionic Command (UK Version)	☐
Blue Max	☐
BMX Kidz	☐
BMX Simulator	☐
Bobby Bearing	☐
Borrowed Time	☐
Boulder Dash	☐
Boulder	☐
Bounty Bob Strikes Back	☐
Bruce Lee	☐
Bubble Bobble	☐
Buck Rogers: Countdown To Doomsday	☐
Bug Bomber	☐
Buggy Boy	☐
Cabal (UK Version)	☐
California Games	☐
Centauri Alliance	☐
Champions Of Kryn	☐
Chip's Challenge	☐
Choplifter	☐
Citadel	☐



CJ's Elephant Antics	☐
Combat School	☐
Crazy Comets	☐
Creatures	☐
Creatures 2	☐
Cyberball	☐
Cybernoid	☐
Dan Dare	☐
Dark Side	☐
Death Knights of Kryn	☐
Defender Of The Crown	☐
Diamond Mine	☐
Doomdark's Revenge	☐
Dragon Wars	☐
Dragonsden	☐
Driller	☐
Dropzone	☐
Druid	☐
Eidolon, The	☐
Elvira 2	☒
Emlyn Hughes' International Soccer	☐
E-Motion	☐
Encounter	☐
Enforcer	☐
Entombed	☐
Exile	☐
Fiendish Freddy's Big Top O' Fun	☐
First Samurai	☐
Fourth Protocol, The	☐
Frankie Goes To Hollywood	☐
Gauntlet II	☐
Gauntlet III	☒
Ghostbusters	☐
Ghouls 'N' Ghosts	☐
Grand Prix Circuit	☐
Great Giana Sisters, The	☐
Green Beret	☐
Gremlins	☐
Gribbly's Day Out	☐
Guardian	☐
Guild Of Thieves	☐
Gunship	☐
Gyru	☐
Hacker	☐
Hardball	☐
Hawkeye	☐
Head Over Heels	☐
H.E.R.O.	☐

Hitchhiker's Guide To The Galaxy, The	☐
Hunter's Moon	☐
Hyper Sports	☐
I, Ball	☐
IK+	☐
Ikari Warriors	☐
Impossible Mission	☐
Impossible Mission 2	☐
International 3D Tennis	☐
International Soccer	☐
Into The Eagle's Nest	☐
Iridis Alpha	☐
Iron Lord	☐
Ivan 'Ironman' Stewart's Super Offroad	☐
Jumpman	☐
Juno First	☐
Kamikaze	☐
Katakis	☐
Kikstart 2	☐



Knight 'N' Grail	☐
Koronis Rift	☐
Laser Squad	☐
The Last Ninja	☐
Last Ninja 2, The	☐
Leaderboard	☐
Legacy Of The Ancients	☐
Lemmings	☐
Little Computer People	☐
Lode Runner	☐
Lords Of Chaos	☐
Lords Of Midnight, The	☐
Lotus Esprit Turbo Challenge	☐
Magic Candle, The	☐
Mancopter	☐
Maniac Mansion	☐
Mars Saga	☐
Master Of Magic	☐
Mayhem In Monsterland	☐
Mega Apocalypse	☐
Mercenary	☐
Microprose Soccer	☐
Mission Elevator	☐
Montezuma's Revenge	☐
Monty On The Run	☐
Moon Patrol	☐
M.U.L.E.	☐
Myth: History In The Making	☐
Nam/Vietnam	☐

EXTREMELY RARE

Games that have less than a few dozen known copies available.

VERY RARE

Very hard to come by. Expect to see only a couple of copies per year.

RARE

You should be able to source these in a reasonable amount of time.

UNCOMMON

You won't find them straight away, but you will after a search.

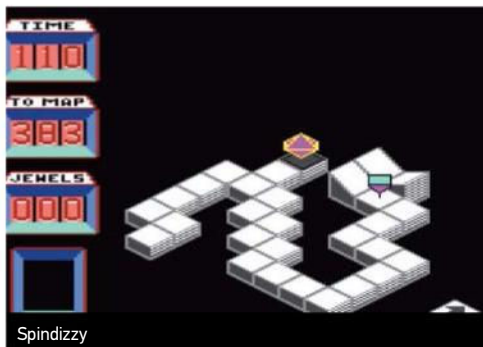
COMMON

Always just a click away for the average collector.

VERY COMMON

So common you'll find them in most bundles of games you buy.

Navy SEALs	☐
Nebulus	☐
Neuromancer	☐
Newcomer	☐
Night Shift	☐
Ninja Spirit	☐
OutRun Europa	☐
Pac-Land	☐
Pac-Mania	☐
Pang	☐
Paradroid	☐
Parallax	☐
Park Patrol	☐
Pastfinder	☐
Pawn, The	☐
Pistop 2	☐
Platoon	☐
POD	☐
Powerplay	☐
Project Firestart	☐
Project Stealth Fighter	☐
PSI-5 Trading Company	☐
Raid On Bungeling Bay	☐
Raid Over Moscow	☐
Rainbow Islands	☐
Revenge Of The Mutant Camels	☐
Revs	☐
Rick Dangerous	☐
Robocop 3	☐
Rocket Ranger	☐
Rodland	☐
Rollaround	☐
Samurai Warrior	☐
Scapeghost	☐
Scarabaeus	☐
Sentinel	☐
Sentinel, The	☐
Seven Cities Of Gold	☐
Shadowfire	☐
Sheep In Space	☐
Skate Or Die	☐
Slayer	☐
Sleepwalker	☐
Slicks	☐
Smash TV	☐
Space Crusade	☐



Space Rogue	☐
Space Taxi	☐
Speedball	☐
Speedball 2	☐
Spelunker	☐
Spindizzy	☐
Spore	☐
Spy Hunter	☐
Spy Vs Spy	☐
Star Paws	☐
Starcross	☐
Steg The Slug	☐
Storm Across Europe	☐
Stormlord	☐
Strike Fleet	☐
Stunt Car Racer	☐
Summer Games 2	☐
Super Pipeline 2	☐
Super Sunday	☐
Supremacy	☐
SWIV	☐
Tank Attack	☐
Tass Times In Tonetown	☐
Tau Ceti	☐
Temple Of Apshai Trilogy	☐
Tenth Frame	☐
Tetris	☐
They Stole A Million	☐
Thing On A Spring	☐
Thrust	☐
Time Machine	☐
Times Of Lore	☐
Toy Bizarre	☐
Tracksuit Manager	☐
Trailblazer	☐
TRAZ	☐
Turbo Charge	☐
Turrican	☐
Turrican 2	☐
TV Sports Football	☐
Ultima 4	☐
Untouchables, The	☐
Uridium	☐
Warhawk	☐
Wasteland	☐
Way Of The Exploding Fist, The	☐
Whistler's Brother	☐
Who Dares Wins 2	☐
Wings Of Fury	☐
Wizard	☐
Wizard Of Wor	☐
Wizball	☐
World Games	☐
Zak McKracken And The Alien Mindbenders	☐
Zenji	☐
Zig Zag	☐
Ziods	☐
Zolyx	☐
Zone Ranger	☐
Zork	☐

Collector **Q&A**

In addition to his insane knowledge of the system, Mat Allen also has a rather impressive collection...



■ What drew you to start collecting for the C64?

Actually, you could say I started right from the moment I got a C64 because I've barely let go of anything in more than 25 years. There's probably an inherited packrat gene from my father somewhere in the mix!

■ How long have you been collecting so far?

During the Nineties, I went on a bit of a pursuit via various mail order firms to fill a lot of gaps in my collection, so that's probably when it really began. The cartridge interest started in 2000 when I worked on the C64 section for the Digital Press website.

■ Why did you buy the games you have so far?

Originally it was to acquire games I hadn't bought or played during the Eighties, especially on disk as I was a late owner in that respect. Later on it was games I only just discovered, and games that needed digitally preserving for projects such as Gamebase64.

■ What advice do you give to potential collectors?

Don't go wild, unless you're trying to fill a lot of gaps at the same time. With so many games out there, pick and choose the ones you wish to obtain, be it titles from a certain company, genre or style. My original criteria was most games given over 80% in *Zzap!64* that I didn't own!

■ What is the cornerstone of your collection?

That's like asking to pick a favourite child. Obtaining the *Crystal Castles* prototype cartridge was a coup. *Double Dragon* on cartridge and *Gauntlet III* are up there as well.

■ What would you say is the hardest game to find that you've bought?

I've got quite a few one-offs here, mostly on cartridge. Getting some of the Japanese MAX and Polish titles was a lesson in good fortune, and being in the right place at the right time. And I must say thanks to Andy 'Thalamus' Roberts for selling me the copy of *Gauntlet III*.

■ What is the most you've spent on any one title?

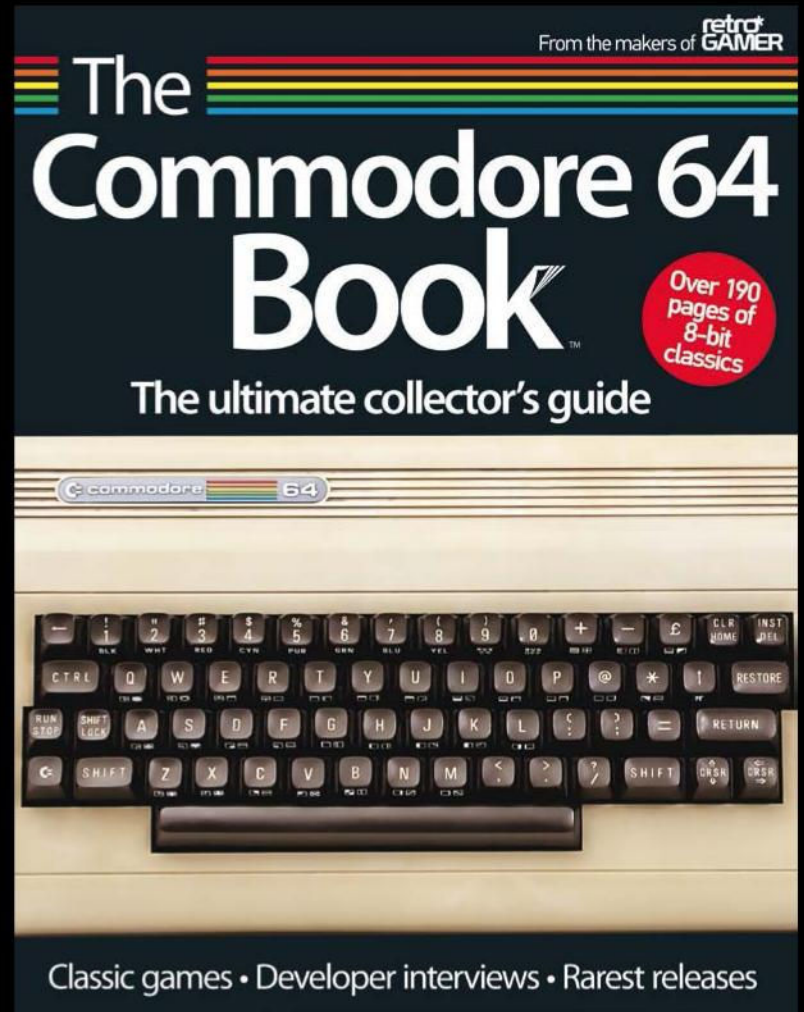
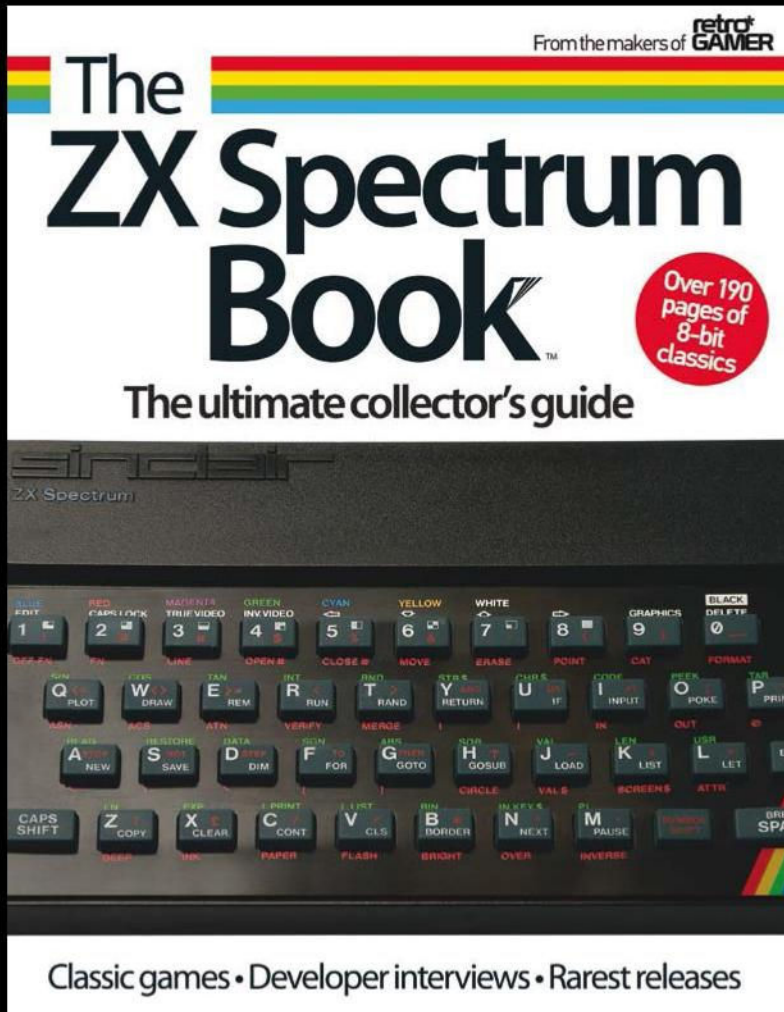
Surprisingly not that much, compared to other systems I collect for. The most was probably £150 for one of the Dinamic cartridge titles. There have been a few others approaching that figure, but that is the highest.

■ What are you still missing?

I'm still looking for an original of *Chuck Rock*. If it even exists, as no one I know even owns it. Aside from that, a Japanese C64 as well.



Two legendary computer formats celebrated in one book



With both of these amazingly well loved 8 Bit home computers celebrating their 30th year, RetroGamer is proud to release this 'two-sided' pack looking back to a time when these giants ruled the home gaming world. Whether you loved Sabre Wulf, Buggy Boy, Elite or Paradroid you'll find all the classics inside this book.



Classic games • Hardware celebrated • Studios revisited